

Business and Information Technology Department

AUP for Academic Year 2021-2022

October 2020

Describe Department/Unit

Connection to College Mission

It is the mission of the Department of Business and Information Technology to provide courses and instruction that will meet the academic, career, and general education needs of our students, college, and communities. We provide instruction leading to Associate degrees and certificates in multiple occupational areas including: Business Administration, Business, Management, Business Office Technology, Cyber Security, Information Technology, Paralegal, and Web Professional. The programs in the Department of Business and Information Technology provide life-long learning and support to students in their academic, technical, and vocational pursuits. The goal of our programs is to foster in students a lifelong desire to learn, a passion to excel, and a commitment to contribute actively to their local community. Students graduating from the department's programs will be prepared to transfer to a four-year institution to continue as students in Business, Business Administration, Business Management, Computer Information Systems, Management Information Systems, or other comparable courses of studies. Students earning Associate degrees, certificates, and awards that are under the Department of Business and Information Technology will be prepared to enter the job market in entry level positions with a variety of focus including but not limited to: help desk providers, computer operators, desktop publishers, office clerks, administrative support specialists, information technology and cyber security support specialists, legal assistants, and web developers/designers.

Report on Improvements Made and Gaps Identified in the Prior Year

Student Equity: Actions Taken

Business

In the previous year, the Business program pathways were altered to attract a wider range of students. Prior to COVID-19, the lower-level courses were available on-campus at the IWW campus. Additionally, several of the introductory courses were offered at the ESCC and East Kern. Courses were also offered in the prisons. All courses are also offered online. The program is available in a wide variety of offerings. It was expected that these changes would increase enrollments in all demographics, including ethnicity. The data, however, describe otherwise for many of the targeted groups. This is likely due to a college-wide change in delivery due to COVID-19.

Business Office Technology

The actions taken by the department was to make sure all classes has a first week syllabus quiz to make sure that students knew about the requirements for each class. Enrollments in the program have increased and success is 78.4%. Enrollments by ethnicity is spread across all groups. Some have gone up (American Indian – 58.3%) due to partnerships with the tribes while others have fallen (Asian -15.4%, Filipino -33.3%). Success rates are high among most ethnic groups, but the African American success rate is 59.3%. While the success rate for the African American group is well below the college target, the success rate in this group has been trending upward since 2016-17 (44.2% in 2016-17, 57.8% in 2017-18, 53.8% in 2018-19 and 59.3 in 2019-20).

Cyber Security/Information Technology

Where some of the equity gaps have risen, the COVID affect may be responsible for a lot of the drops as students in these groups were impacted at a higher rate of infection, loss of employment and not engaging in academic pursuits as they did previously. This drop crossed the board from Ethnicity, Age and Gender for the IT-Cyber programs.

Paralegal

Paralegal: The largest equity gaps have been and continue to be in age 18 and males. There has been marketing completed within

our service area to try to attract more students and reach those whose numbers are lower. However, our gaps match the nationwide gaps for those who are employed at paralegal. It is typically female over 30 in the profession.

We are working with Tehachapi high school for dual enrollment; it was tentatively going to start this Fall 2020 and we had made progress toward a start, but was put on hold due to COVID-19. There are high school students currently in the program through concurrent enrollments.

Web Professional

A department-wide equity measure was to implement syllabus quizzes to better help students understand course expectations.

Student Equity: Gaps to be Addressed

Gender: Male

Gap Identified:

Business

Male enrollments in business courses increased by 10% (from 680 to 749). This is most likely due to enrollments at the prisons. However, retention fell from 89.3% to 86.4% and success fell from 83.1% to 74.9%. These drops are likely due to delivery method changes from COVID-19.

Paralegal

This trend is close to the national average and more males are attending the program than prior years. Continue with marketing outreach for populations.

Ethnicity: African American

Gap Identified:

Business

Hispanic/Latino, White, and African American students comprise the majority (87.3%) of students in the Business program. Hispanic/Latino student enrollments increased 14.0% (from 506 to 577), White student enrollments increased 10.5% (from 428 to 473), and African American student enrollments dropped 21.5% (from 196 to 146). Likewise, while success and retention rates dropped for Hispanic/Latino and White students slightly, retention dropped from 90.8% to 76.6% and success dropped from 85.9% to 66% for African American students. While this could be due to the COVID-19 changes, the reasons for these decreases are unknown at this point.

Business Office Technology

The retention levels fell from 75.4% to 70.4% in the African American population which could be attributed to the COVID crisis in the spring term.

Success rates are high among most ethnic groups, but the African American success rate is 59.3%. While the success rate for the African American group is well below the college target, the success rate in this group has been trending upward since 2016-17 (44.2% in 2016-17, 57.8% in 2017-18, 53.8% in 2018-19 and 59.3 in 2019-20).

IT/Cyber Security

In previous years, the Cyber Security and Information Technology programs identified an equity gap for African American student was well below college level. In the past three years the success and retention rates have increased. Retention rates have gone from 64.9% (2017) to 89.7 % (2018) to 68% (2019). Success rates have gone from 52.4% (2017) to 75.9% (2018) to 68% (2019). While these rates were continuing to increase, the 2019-20 rate of 48% is a huge drop (27.9%).

An interesting note is that males were doing much better (86.7%) than the females (57.1%) in these programs in the past two year,

but both fell in 2019-20 (Males 44.4% and Females 57.1%) for a total of 48% for both populations which was a 27.9% drop. Could 2019-2020 be the COVID effect as they were continuing to rise for both genders? Even if this is the case, they are 25.9% below other students in the program for 2019-2020 (Program Success 73.9% versus African American Success (48%). In the prior year period (2018-19), this population had increased their success to 75.9% over the program total of 71.6%.

Additionally, the enrollment of African American students increased from 2017 from 21 to 28 in 2018 and finally to 31 in 2019.

African American males have increased in the program(s) over the past year from 15 to 20 where the female population dropped from 14 to 11. Recruitment of this population needs to be done to provide opportunities in the job market for these students.

Web Professional

Retention of our African American students is a concern. Retention among this group was 60%, 66.7%, 57.1%, 75%, and 33% over the five-year period. Success was low and quite variable at 50%, 58%, 14.3%, 50%, and 33%. The sample sizes have been in the single digits, so the variance cannot be considered significant, but the consistency of low retention and success is of significance and of great concern.

Our goal is to focus marketing toward these groups to attract more Hispanic and African American students.

Ethnicity: American Indian

Gap Identified:

IT/Cyber Security

The Indian population dropped 38.5% over the past year. While this group has a low enrollment in IT/Cyber (6-13 students each year), the dramatic drop reflected enrollment in 2018-19 of 13 students to 8 students in 2019. Their success rates, however, have risen from 72.6% to 76.6% much higher than the program success rate.

Age: 19 or younger

Gap Identified:

Business

Age 19 or younger enrollments increased (from 17 to 23) in the 17 and Younger age group during the previous year but declined slightly (from 126 to 124) in the 18-19 age group. Retention in the 17 and Younger increased age group increased slightly (from 94.1% to 95.7%) while retention decreased (from 88.1% to 80.2%) in the 18-19 age group. Success rates in the 17 and Younger age group increased (from 76.5% to 91.3%) while it decreased (from 74.6% to 68.6%) in the 18-19 age group.

Business Office Technology

The 18-19 year old group, while success raised from 58.5% to 68.2%, needs to be addressed. The 50 and older group success is at 71.7% which is below the college average.

Paralegal

This data matching the national trend for those employed as paralegals. Continued marketing and outreach to high school within the district and participation in Career days, etc..

Age: 40 or older

Gap Identified:

Business Office Technology

The 50 and older group success is at 71.7% which is below the college average.

Ethnicity: Hispanic

Gap Identified:

Web Professional

Retention of Hispanic students has risen consistently over the past 5 years from 69.6% in 2015-16 to 85.4% in 2019-20. Success has also risen from 56.5% in 2015-16 to 76% in 2019-20. The sample size is sufficient for us to take this trend as reliable data.

Our goal is to focus marketing toward these groups to attract more Hispanic and African American students.

Outcomes Assessment: Actions Taken

Actions taken in the prior academic year

Business

No outcome gaps were identified.

Business Office Technology

Courses in Business Office Technology over the past few years have been redesigned and aligned with industry standards. The retention and success rates seem to support that there has been improvement in this program. The awards dropped from 26 to 6, but this is probably due to students being in their first year as previous years had gone from 7 (2016-17) to 16 (2017-18) to 26 (2018-19). The 2019-20 seems to be an anomaly in so many areas.

IT/Cyber Security

Previous to the SLO in the Fall 2019/Spring 2020, all CSCI courses were updated to the IT designation and were updated. Use of updated technology including simulators and continuing and ongoing individual faculty improvements in the courses contributed to the success. Changes in projects and/or clarification of requirements provides students with improved direction. The department implemented the first week syllabus quiz as well as standard writing expectations.

Student Learning Outcomes were all assessed in 2019-2020 academic year. The faculty are beginning to review the outcomes of these assessments but generally students met the targets for all our courses. (Pending Report)

Paralegal

Courses were assessed within the program review cycle last year. These courses include PARA C101, PARA C112, PARA C122, PARA C130, PARA C140, PARA C190, and PARA C230.

Web Professional

DMA was assessed in Fall 2019.

Assessments completed in the prior academic year

Business

The following courses were assessed in the preceding year.

- BSAD C100 – Introduction to Business (Spring 2020),
- BSAD C101 -- Financial Accounting (Spring 2020),
- BSAD C102 -- Managerial Accounting (Spring 2020),
- BSAD C145 -- Business Communication (Spring 2020),
- BSAD C152 – Managing Diversity in the Workplace (Fall 2019),
- BSAD C171 -- Marketing (Fall 2019),
- BSAD C220 – Project Management (Fall 2019),
- BSAD C220 – Data Analytics for Business (Spring 2020), and

- BSAD C251 – Principles of Management and Organizations (Fall 2019).

Business Office Technology

The Business Office Technology program assessments were completed in 2018-19 and the PLOs were reviewed in 2019-20. The Program Review will be completed this year (2020-2021)

IT-Cyber Security

All the courses in the IT/Cyber Security programs were assessed in 2019-2020. The courses include IT C101, IT C142, IT C143, IT C146, IT C248, IT C251, IT C255, and IT C259.

Paralegal

Courses were assessed within the program review cycle last year. These courses include PARA C101, PARA C112, PARA C122, PARA C130, PARA C140, PARA C190, and PARA C230.

Web Professional

DMA C111 was assessed in the Fall 2019.

Outcomes Assessment: Gaps to be Addressed

IT C143 -Computer Network Fundamentals - SLO #3

Type:

SLO

Target Missed/Gap Detected:

Student success for SLO #3 (Analyze and design a simple Ethernet network using routers and switches.) was not met. The target was 70% but students earned 62.5% which is a 6.5% below our target.

Type of Gap:

Need for revision to assessment method. Need to alter/refine course content. Need to alter/refine instructional techniques.

Analysis and Plan for Improvement:

Faculty will review the instructional materials, projects and assessments to determine where improvement is needed.

Anticipated Semester for Implementing Planned Improvements:

Spring 2021

Anticipated Semester of Next Assessment:

Spring 2022

IT C255 Introduction to Cybersecurity: Ethical Hacking SLO #1

Type:

SLO

Target Missed/Gap Detected:

SLO #1. (Describe and categorize the tools and methods a "hacker"• uses to break into a computer or network.) was not met. The

target was 70% but the assessment was 53.85% which is 16.15% below.

Type of Gap:

Need for revision to assessment method. Need to alter/refine course content. Need to alter/refine instructional techniques.

Analysis and Plan for Improvement:

A new adjunct faculty member was hired to teach the class in the Fall 2020 who has redesigned the course, materials and assessment methods. We will watch the success rates this fall (Fall 2020) and adjust accordingly.

Anticipated Semester for Implementing Planned Improvements:

Fall 2020

Anticipated Semester of Next Assessment:

Fall 2021

IT C255 Introduction to Cybersecurity: Ethical Hacking - SLO #2

Type:

SLO

Target Missed/Gap Detected:

SLO #2 (Defend a computer and a Local Area Network (LAN) against a variety of different types of security attacks using a number of hands-on techniques) was not met. The target was 70% and the assessment was 57.69% which is 12.31% lower.

Type of Gap:

Need for revision to assessment method. Need to alter/refine course content. Need to alter/refine instructional techniques.

Analysis and Plan for Improvement:

A new adjunct faculty member was hired to teach the class in the Fall 2020 who has redesigned the course, materials and assessment methods. We will watch the success rates this fall (Fall 2020) and adjust accordingly.

Anticipated Semester for Implementing Planned Improvements:

Fall 2020

Anticipated Semester of Next Assessment:

Fall 2021

IT C255 Introduction to Cybersecurity: Ethical Hacking - SLO #3

Type:

SLO

Target Missed/Gap Detected:

SLO #3 (Evaluate and demonstrate safe techniques on the World Wide Web.) did not meet the target of 70%. The assessment reflected a 53.85% which is 15.15% below the target.

Type of Gap:

Need for revision to assessment method. Need to alter/refine course content. Need to alter/refine instructional techniques.

Analysis and Plan for Improvement:

A new adjunct faculty member was hired to teach the class in the Fall 2020 who has redesigned the course, materials and assessment methods. We will watch the success rates this fall (Fall 2020) and adjust accordingly.

Anticipated Semester for Implementing Planned Improvements:

Fall 2020

Anticipated Semester of Next Assessment:

Fall 2021

IT C270 Intro to Database Design/ Management - SLO #2**Type:**

SLO

Target Missed/Gap Detected:

SLO #2 (Use the data definition, data manipulation, and data control language components of Structured Query Language (SQL) in the context of one widely used implementation of the language.) was not met. The target was 70% but the assessment reflected 66.67% which is slightly below the target.

Type of Gap:

Need for revision to assessment method. Need to alter/refine course content.

Analysis and Plan for Improvement:

Faculty will review the SLO and the content, projects and assessment and make appropriate adjustments to improve.

Anticipated Semester for Implementing Planned Improvements:

Fall 2021

Anticipated Semester of Next Assessment:

Fall 2021

Program Review: Actions Taken**Paralegal Studies****Year of Last Program Review:**

2018

Actions Taken in the Prior Year to Address Strategies:

Two-Year Strategies completed - Student Success: The program was taken through CIC as a whole to update the PLOs and courses

for the program. The total units for graduation was reduced and a full-time student could complete within two semesters if they start in the Fall. This will also help part-time students complete the requirements. Two core requirements were changed and the elective were reduced and a new one created. All course have gone through CIC for revision since the last program review.

Two Year Strategies - LDA Certificate completed: The new course was created for PARA C090/215X Legal Document Assistant instead of creating a new certificate. The students interested in working as an LDA can take the elective course and the degree will still give them the requirements under the California Business and Professions Code to be licensed. This will be easier and less confusing to students.

Two Year Year Strategies - Marketing - This is ongoing. New materials will be created for program changes once the addendum is released. Marketing requests are being made every Fall and Spring term. Working with Dean for overall BIT marketing program.

Five Year Strategies - Accessibility - Three courses have been approved through OEI for the exchange. PARA C101, PARA C112, and PARA C122. Other course are being similarly updated as they are taught each semester. More course can be submitted this semester for approve through the PEDTECH Committee.

Five Year Strategies - Uniform Curriculum - ongoing as classes are being taught each semester. Working with adjunct faculty for books and sharing of Canvas courses for uniformity of information. Courses are going through OEI and all have been submitted through CIC. Program revised (see above).

Five Year Strategies - Program at Prison (ISEP) - - IN PROGRESS- courses are being offered at the Techachapi and California City CDCR. Our adjunct faculty has retired and a new adjunct will need to be found to teach out there. Current adjunct cannot due to full-time employment and place of living. PARA C101, PARA C112, PARA C122 have been taught. PARA C130 was on the list but COVID and adjunct leaving stalled the course. Working with ISEP for schedule for all courses to be offered. Program revision should assist in course offerings.

Strategies Still to be Addressed:

Two Year Year Strategies - Marketing - This is ongoing. New materials will be created for program changes once the addendum is released. Marketing requests are being made every Fall and Spring term. Working with Dean for overall BIT marketing program.

Five Year Strategies - Accessibility - IN PROGRESS Three courses have been approved through OEI for the exchange. PARA C101, PARA C112, and PARA C122. Other course are being similarly updated as they are taught each semester. More course can be submitted this semester for approve through the PEDTECH Committee.

Five Year Strategies - Tracking Alumni - ongoing, need to work and connect with new Career Center and IR for how to implement a system.

Five Year Strategies - Uniform Curriculum - ongoing as classes are being taught each semester. Working with adjunct faculty for books and sharing of Canvas courses for uniformity of information. Courses are going through OEI and all have been submitted through CIC. Program revised (see above).

Five Year Strategies - Program at Prison (ISEP) - IN PROGRESS- courses are being offered at the Techachapi and California City CDCR. Our adjunct faculty has retired and a new adjunct will need to be found to teach out there. Current adjunct cannot due to full-time employment and place of living. PARA C101, PARA C112, PARA C122 have been taught. PARA C130 was on the list but COVID and adjunct leaving stalled the course. Working with ISEP for schedule for all courses to be offered. Program revision should assist in course offerings.

Five Year Strategies - ABA Approval - continued monitoring of ABA approval for online only programs. Maybe COVID will help in that direction. Monitor and maintain close to guidelines as possible for when approval become possible.

Information Technology/Cyber Security - old Computer Information Systems

Year of Last Program Review:

2016

Actions Taken in the Prior Year to Address Strategies:

The CIS 2016 Program Review (current IT/Cyber) identified three two-year strategies which include improving marketing efforts, assessing prerequisite and sequences of courses and working with the advisory committee to develop additional internship and placement programs. All of these strategies were completed and continue. The five-year strategies including revising all CSCI courses to IT course, improve data collection for program courses including assessing entire program in 2019-2020 and working with the advisory committee to update courses, degrees and certificates to align with industry/workforce needs. All have been completed.

Strategies Still to be Addressed:

Student Learning Outcomes for all IT/Cyber courses were done in 2019-2020. Analysis of the outcomes will be done in 2020-21.

Business Office Technology

Year of Last Program Review:

2014

Actions Taken in the Prior Year to Address Strategies:

Student Learning Outcomes for all IT/Cyber courses were done in 2019-2020. Analysis of the outcomes will be done in 2020-21.

Strategies Still to be Addressed:

Student Learning Outcomes for all IT/Cyber courses were done in 2019-2020. Analysis of the outcomes will be done in 2020-21.

Business

Year of Last Program Review:

2016

Actions Taken in the Prior Year to Address Strategies:

The last Business Program Review was done in 2016. The only six-year goal was to create current student and graduate workplace tracking system to monitor student employment. While some work has been done on this in the department, it is not complete.

Strategies Still to be Addressed:

Continue to work on creating current student and graduate workplace tracking system to monitor student employment. While some work has been done on this in the department, it is not complete.

Web Professional

Year of Last Program Review:

Actions Taken in the Prior Year to Address Strategies:

1. Close equity gaps. Equity gaps are effectively being closed among the Hispanic population, but significant gaps still exist for African American students.
2. Increase enrollment. We are meeting this goal. Enrollments have increased 197% between 2015-16 and 2019-20 (FTES 182 – 358). This has been accomplished with social media marketing. We also created a Digital Media and Marketing Certificate, just published in the most recent catalog. This reaches a different student population and should further bolster enrollments.

3. Improve Retention and Success Female retention has improved from 68.1% to 82.6% over the past five years. Male retention has improved from 77.3% to 81.3% over the past five years. Female success has improved from 58.5% to 75.4% over the past five years. Male success has improved from 59.1% to 71.9% over the past five years.

4. Evaluate Adoption of Lynda.com Most of our courses have adopted LinkedIn Learning (formerly Lynda.com). We have a contract with LinkedIn Learning that is ready to execute when funds are available. This contract will provide every student at Cerro Coso with a free LinkedIn Learning account. This will replace textbooks in many CTE courses, and allow for supplemental instruction in arts and letters courses.

5. Embed oral presentations within the program. This goal is proving untenable because of accessibility.

Strategies Still to be Addressed:

Continue to close equity gaps among African American students.

Annual Planning: Actions Taken

Investigate Creation of Interdisciplinary Entrepreneurship Certificate

Business

The department met with Advisory Committees in IWV and the ESCC to discuss the certificate. The committees enthusiastically approved a four course, non-interdisciplinary Entrepreneurship Certificate of Achievement. The proposed certificate includes BSAD C100 (Introduction to Business), IT C101 (Introduction to Computer Information Systems), BSAD C171 (introduction to Marketing), and a new course BSAD C098 (Fundamentals of Entrepreneurship Accounting). The new course has been submitted and approved by CIC and the certificate has been submitted to CIC for approval

Digital Media Skills Certificate

The Digital Media and Marketing Certificate was created last year and is in the catalog now.

Legal Document Assistant Certificate or Course

The court has been completed and approved through CIC. It will be offered Spring 2021.

Review all courses for accessibility and submit courses to OEI exchange

Several Courses have been completed - PARA C101, PARA C112, PARA C122. Courses are being designed with OEI guidelines in mind and more will be submitted. It is desire to have all courses on the OEI exchange.

Program at Prison - books for students

Attempts were made to secure funding for textbooks. But nothing was completed. Contact was made to CTE Deans and to ISEP representatives. Email was sent to Cengage representative but no information was forthcoming. OERs are not readily available for this program. Books are needed. Now with COVID books are now being distributed.

Review of Current Year Initiatives

Reminder of Initiatives for the Current Year

AA-T Legal Studies for Transfer new degree

Evaluate the SLO/ILO for Cyber/IT Program

The Information Technology and Cyber Security faculty completed assessments in all of the courses in both the certificate and degree programs.

Make a plan to correct/modify the IT/Cyber Program

The Information Technology and Cyber Security faculty completed assessments in all of the courses in both the certificate and degree programs. The assessments will be reviewed in the Fall 2020 term.

Two additional certificates (Cloud Computing and Linux Administration) were developed and approved through the curriculum process. Both of these certificates were supported by the IT-Cyber Advisory Committees (IWV/ESCC). The certificates will be reviewed at the regional meeting in September 2020.

Hire Cyber Security Faculty Member

A request for a Cyber Security faculty member was completed and submitted to the Academic Senate. The position was not selected for hire.

Paralegal Program expansion dual enrollment

Paralegal Program at prison

Digital Media and Marketing Certificate

Increase web course enrollments through OEI Approval

IT/Cyber Security

IT C101 was taken through the process and approved through the State.

IT C142 has been reviewed and changes are made. Ongoing changes to 142 and other courses are now under development.

Plan Initiatives for Next Year

Initiatives for Next Academic Year

Paralegal Program expansion dual enrollment

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

Investigate and work with dean, faculty, and dual enrollment high schools for expansion of program. Tehachapi High School (THS) has shown interest in the program. Continue to work with the contact at THS for dual enrollment. This was in the process to start in Fall 2020, but was not able to move forward due to COVID. Work to get back in line for 2021-2022 school year. Ongoing following until available.

Lead Measure of Success:

Are any of the lead measures identified above lacking assessment instruments?

No

Does the department request help to develop these instruments?

No

Lag Measure of Success:

Person Responsible:

Full-time faculty, Dean, Chair

It addresses a gap in student equity

Age 19 and above. Also male students.

Which strategic goal does this initiative address?

Goal 1: Maximize Student Success, Goal 2: Advance Student Equity Measures, Goal 3: Ensure Student Access, Goal 4: Enhance Community Connections

Paralegal Program at prison and access to books**Is this part of a multiyear initiative?**

Yes

Specific Action Steps to be Taken:

Work with dean and Prison Education Committee (ISEP) to increase course offerings at the prison education locations. One adjunct instructor was working at the facilities, but retired. A new adjunct will need to be identified to help at the prison. Current adjunct are unavailable due to other full-time employment. Students do not have regular access to textbooks. OERs are not readily available to legal subject matter. Access to textbooks would ensure ISEP students are getting the same education as their non-incarcerated classmates.

Some courses have been offered at the prison however a regular schedule of course offering needs to be provided to help students complete the program so they can gain employment skills and employment. The degree could potentially be completed while incarcerated. Full-time non-ISEP students can complete in two semesters.

Lead Measure of Success:**Are any of the lead measures identified above lacking assessment instruments?**

No

Does the department request help to develop these instruments?

No

Lag Measure of Success:**Person Responsible:****It addresses a program review strategy**

Five-year strategy for growth and completion at the prison education sites.

Which strategic goal does this initiative address?

Goal 1: Maximize Student Success, Goal 2: Advance Student Equity Measures, Goal 3: Ensure Student Access

Review all courses for accessibility and submit courses to OEI exchange

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

Steps will be taken to review all course as they are offered to ensure accessibility for students. Three courses have been submitted and approved by the exchange. It is the ultimate goal to have all courses assessed and approved for the exchange. At the minimum all required courses should be approved through the exchange. Electives will also be submitted as taught and updated. This will increase access for students and ensure accessibility.

Lead Measure of Success:

Are any of the lead measures identified above lacking assessment instruments?

No

Does the department request help to develop these instruments?

No

Lag Measure of Success:

Person Responsible:

It addresses a program review strategy

Five-Year - Review all courses for accessibility.

Which strategic goal does this initiative address?

Goal 1: Maximize Student Success, Goal 2: Advance Student Equity Measures, Goal 3: Ensure Student Access

Equity: African Americans

Is this part of a multiyear initiative?

Yes

Specific Action Steps to be Taken:

After review of our department data, African American students in four of the five programs are struggling with retention and/or success. These programs are Business, Business Office Technology, IT/Cyber Security and Web Professional.

The department will work on developing support and personal/academic coaching for African American students by engaging the Umoja club who offers support to this population. We will reach out to them and work with them to develop an assignment for our online classes where we will bring students to them and set personalized appointments to make the connections for support.

This coaching assignment will include not only African American students but all students and we will also engage the Spanish Club, CTEC and others once identified that may provide coaching and support.

This assignment may be piloted in a Spring 2021 class to further develop and implement across the department in Fall 2021. A

survey may be employed to receive feedback from students.

Lead Measure of Success:

Following the Fall 2021 term, we will assess the success/retention of all groups including African Americans to see if there is a measurable difference. Further revision of the assignment tool may be made for the Spring 2022 term based on feedback from students, club faculty and counselors/ed advisors.

Are any of the lead measures identified above lacking assessment instruments?

Yes

Does the department request help to develop these instruments?

Yes

Lag Measure of Success:

BIT will need the assistance of institutional research to provide reports immediately following the fall term on the success and retention of all ethnic groups and provide analysis where needed.

Person Responsible:

Valerie Karnes/Vonetta Mixson

It addresses a gap in student equity

This will target all groups but African Americans and Hispanic retention and success is the primary area.

Which strategic goal does this initiative address?

Goal 2: Advance Student Equity Measures

Evaluate Resource Needs

Facilities

IT/Cyber Security

Dedicated classroom request has been requested for the past four years. This is still a need and will increase as the program continues to grow. If the new hire is approved, we will need an additional faculty office.

Information Technology

IT/Cyber Security

If a new dedicated room is coming online, there will be needs for teaching station and equipment as well as student computers and lab computers.

Paralegal

Subscription to Lexis Nexis/Lexis Advanced for students. We have NexisUni, but it is not the same database. Also, in the legal research and writing courses (PARA C112 & PARA C122) the citation workbook the students currently purchase would be offered free through their Lexis Advanced account. The online workbook would also provide instant response and help with citation formatting and provides reports for instructors as to student progress and areas needing extra review. Also, the one computer in the

LRC is not available to all students because not all students live in Ridgecrest. They would be using Lexis Advanced not.

Marketing

Business

We will continue to conduct our Advisory meetings with local businesses to improve and make our programs more relevant. We will continue to actively participate in the college day for local high school students, if possible. We will work with Natalie Dorrell to develop marketing materials and strategies. With the addition of our new faculty in Tehachapi, marketing efforts will be implemented to attract students to this new teaching center.

Marketing materials and advertising for the new Entrepreneurship Certificate

Business Office Technology

Development of brochures and a marketing campaign to increase enrollment.

IT/Cyber Security

Marketing funds and marketing is needed each semester for the programs. Brochures and banners were developed and if there are changes in the programs due to SLO/ILO processes, the documents/banners will need to be modified. New marketing materials and advertising for the new Linux Administration and Cloud Computing Certificates of Achievement.

Paralegal

Revision and completion of new marketing material for program changes. Marketing for student enrollments within the service area and through social media.

Marketing for new AA-T Law, Public Policy, and Society if approved through the state.

Web Professional/Web Fundamentals

Funding is needed annually for social media and Google marketing of Fall courses so students can enter the pathway during the optimal time of year. This marketing has proven to make a significant difference in enrollments. We also need continued support for printing flyers and brochures for outreach events, such as Career Day, the Desert Empire Fair, and community presentations.

Professional Development

Faculty continue to need professional development both for faculty flex and to attend industry and professional organization conferences for all disciplines and programs.

Business

Our department will continue to attend the statewide California Business Education Association (CBEA) conference, which offers many educational and training sessions for business educators. We will expand our professional development by attending the Western Business Education Association (WBEA) and the National Business Education Association (NBEA) conferences that also offer education and training sessions for business educators. Additionally, on-going coursework in Lynda.com (aka LinkedIn Learning), and @One will be completed. We will continue to actively participate in the college fall and spring flex days.

IT/Cyber Security

Funding to attend ICT and CBEA state conferences for continuing education and professional development for currency is required.

Paralegal

Attendance at the CAPA annual conference; CALDA conferences; State Bar or other continuing legal education, and other

development opportunities to help students. It is important that current topics and changes within the law are provided to students.

Web Professional

Research and Data

The BIT department will have programmatic level reports on success, retention, enrollment in detail to determine where the gaps exist. Comprehensive reports will be needed periodically as program reviews and assessments are conducted.

Staffing Requests

1000 Category - Certificated Positions

Information Technology/Cyber Security

Location:

Ridgecrest/IWV

Justification:

Are there too few or too many students enrolling for particular classes or majors?

Currently the IT/Cyber Security programs share many courses. The courses are generally full. The number of sections has increased from 17 in 2016 to 31 in 2019. Due the crisis (COVID), the sections were reduced as our on-ground offerings were transitioned. Student retention in IT/Cyber programs was 89.2% and student success was 72.1% in 2019-2020. Data reflects that students are enrolling, being retained, successful and completing the program(s). Completers in the program have gone from 51 (2017-18) to 87 (2018-19) to 89 (2019-20)

At this time, we are not able to increase sections due to the load limits for adjuncts as well as their own time limits. Additional program development has been done to meet the needs of the employers including an Operating System Certificate (Linux Administration) as well as an Cloud Computing. We do not have adequate full-time faculty to teach all the courses and/or develop additional curriculum. We have hired additional adjuncts temporarily to meet the current semester needs but we need someone who full time to further develop the programs.

Are there too many courses or programs that are under capacity?

The program is primarily offered online as we do not currently have the facilities to offer on campus classes. What is limiting our programs is not having another full-time faculty member to meet the needs.

Are courses “core mission”?

Yes. One of the community college core mission is to serve the workforce needs of employers. There is a workforce shortage in our service area, region, state and nationally. The Naval Air Warfare Center at China Lake, local contractors and other businesses are having a difficult time hiring for both information technology and cyber security positions. The shortage is expected to increase. From 2013 to 2019, cyber security jobs demand increased 94% and information technology job demand increased 30% (“Recruiting Watchers for the Virtual Walls? June 2019, Burning Glass).

Additionally, we serve Edwards Air Force base, Mojave Spaceport as well as many other businesses that have a need to support computerized systems, networks, and secure their data. The movement to the Internet of Things is also impacting all the businesses in our service area.

In Congressional hearings on Monday, September 29, 2019 the largest threat to our national security from the Director of Intelligence was identified to be cyber security. This is a national need.

Are courses overscheduled?

No. The courses are not overscheduled. Many of the core classes are offered every semester to provide students with the ability to move through the program quickly. We offered the four IT Plus COA classes in the summer to provide student with an opportunity to

further fast track the certificate, but it is difficult to cover the depth of the material even in the 12-week format we delivered.

Is there capacity to offer courses or programs at different times and/or locations?

We are currently doing that now and have hired additional adjuncts but with the new certificates and enrollments expected to increase, we have tapped out our current full-time faculty and adjuncts.

Is there a workforce shortage in the service area or region?

Yes. There is a workforce shortage in our service area, region, state and nationally. The Naval Air Warfare Center at China Lake, local contractors and other businesses are having a difficult time hiring for both information technology and cyber security positions. The shortage is expected to increase. From 2013 to 2019, cyber security jobs demand increased 94% and information technology job demand increased 30% ("Recruiting Watchers for the Virtual Walls? June 2019, Burning Glass).

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In Congressional hearings on Monday, September 29, 2019 the largest threat to our national security from the Director of Intelligence was identified to be cyber security. This is a national need.

What are the costs and/or lost revenue from gaps between student demand and course or program capacity?

We are losing the ability to meet the demands of the employers as well as the students in our college. In 2018-2019 there were 511 declared majors in IT/Cyber. There are likely more students in the program, however, many have not either declared a major or changed to it. Since we do not have additional staff students will not be able to get into the classes to complete the degrees/certificates. With the awards almost doubling in one year, the college is missing an opportunity to grow in this area.

Additionally, there are other new certificates (Linux Administration and Cloud Computing Certificate of Achievement) that have been developed and we could lose our market standing as well as potential revenue if we cannot meet the need.

Lastly, while we have a Computer Technology Exploration Club (CTEC) that is active on the IWV campus, there are other student technology activities that we are not able to explore due to a lack of another faculty member. This includes the Cyber Patriot competitive club where students compete in cyber activities against other colleges. This provides students with hands-on application to what they are learning and further engages them in the field. There is also the potential to develop e-sports which not only provide students with competitions, but there is the potential to develop this area as a major.

In support of your proposal, provide the following data: Size of wait lists in the discipline

Waitlists for CIS/IT/Cyber increased from 59 (2016-17) to 52 (2018-2019) which is the time period that the new program was instituted. In 2014-2015 the first day waitlist was 33 Department productivity, previous year

Number of faculty currently in the department

There are two full time faculty that teach in the IT/Cyber area, however, one of the faculty members is split between Business and Information Technology. Their load allows for him to teach two sections of courses each semester.

The other full-time faculty member has baseline knowledge for the IT/Cyber program but does not have the education, background or work experience in the field (IT/Cyber) to teach the upper division courses. The full-time person would have to return to school to prepare and then enter the workforce for at least three years full time in order to meet the requirements to teach the upper level course. The faculty member generally teaches two sections of C101 (load .333 each course) and C142 (load .40 each). Their current load is 1.466.

The use of adjuncts, overload and summer classes has ranged from a low of 44% to 73% over the past three years. Full time faculty teach an averaged to 45% of the course offered in the programs (2017-18 – 27% and 2018-19 – 36%).

Number of adjunct faculty

We currently have four adjunct faculty.

Number of certificates awarded, previous year

Name	2017-18	2018-19	2019-2020
CC Computer Info Sys AS	11	19	
CC Computer Info Sys-Cert	11	19	
CC Computer Science AS	2		
CC Cyber Security Tec AS	5	5	
CC Cyber Security Tec Cert	4	7	
CC Data Analyst I	2	6	
CC Info Technology AS			
CC Info Technology Cert			
CC Information Tech Plus Cert	16	31	
TOTAL	52	87	

Core curriculum classes

• IT C101 • IT C142 • IT C143 • IT C146

CTE classes with workforce data (wage/high demand) Number of students at first day and census, previous year

There is a workforce shortage in our service area, region, state and nationally. The Naval Air Warfare Center at China Lake, local contractors and other businesses are having a difficult time hiring for both information technology and cyber security positions. The shortage is expected to increase. From 2013 to 2019, cyber security jobs demand increased 94% and information technology job demand increased 30% ("Recruiting Watchers for the Virtual Walls?", Burning Glass, June 2019).

Additionally, we serve Edwards Air Force base, Mojave Spaceport as well as many other businesses that have a need to support computerized systems, networks, and secure their data. The movement to the Internet of Things is also impacting all the businesses in our service area.

There has been conversation with NAWC regarding the re-education of their scientists and engineers in cyber security in order to protect existing military

2000 Category - Classified Staff