**Academic Program Review**

**Review Panel Report**

**Microcomputer Business Applications AAS**

**Microcomputer Business Applications Certificate**

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| **Date of Review: 10/25/2017****Names and positions of reviewers:** **Member Sylvia Vega Position: Learning Center Coordinator - STC****Member Mark Ebert Position: Advisor****Member Mary Kieser Position: Professor of RDG/ENG – APR Coordinator** |
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| **Clarity and appropriateness of all program descriptions, mission or vision statements:**The program description seems appropriate. However, it does not reflect what is shown in the 2017-2018 CAC Catalog (page 79). I inadvertently used the new catalog description that will be in the 2018-2019 catalog. Also, Perhaps the program could expand on the description when it states: “general education courses provide business-related skills”—such as . . . (specifically reference the CSLOs here. For example CSLO2 – Integrative Knowledge = Identify, comprehend, apply and synthesize facts, concepts, theories and practices across broad and **specialized knowledge areas**) That will be added.The development of a mission or vision statement for the program may be beneficial. Perhaps the statement could include “information technology expertise,” problem-solving skills, etc.”  |
| **Clarity and appropriateness of all degree and/or certificate program student learning outcomes:**The outcomes look appropriate for the degree and certificate. Are they covered in a capstone course that must be taken for both the AAS degree and certificate? There is not a capstone class; these are skill taught in core classes. |
| **Evaluation of Program Quality** |
| **Quality and Appropriateness of Curriculum:**The curriculum comparison charts showed that the CAC courses for the AAS and Certificate seems similar to those at the other colleges. Eastern AZ College requires a 3 – 1 credit office procedures credits. Has CAC considered this? Prioritized skills needed as not to exceed 60 credit hours. We noticed that for the certificate, 2 of the other colleges required an introductory accounting class. Has CAC considered this? Accounting was added to the 2018-2019 AAS but not the certificate. |
| Contribution of Program in Meeting Institutional Strategic Goals:The Peer Review Team had the following questions for clarification: **Strategic Goals and the Microcomputer Business Applications efforts to Achieve them.** 1. ***Ensure broad access to high-quality innovative educational programs, services and training opportunities for Pinal County residents:*** What type of innovative programs or software is used by the program? Students learn on the actual industry software. Businesses can be slow to upgrade just like CAC, so several versions are being taught. Is a lack of funding and resources keeping the program from being innovative? Can anything be done such as the creation of a computer lab on each campus that has updated software and equipment needed for the program? New computers and software are being rolled out district wide.
2. ***Improve student retention, persistence, completion and job placement*** How do you determine that students are ready for the workforce? Projects in the application classes teach and test skils needed in the workforce. GenEd classes teach the soft skills needed. Have businesses been surveyed to see if having a Microsoft Certification is valuable and a desirable qualification? Yes, most businesses looking for employees in this career field do not require the certification. For those wanting to advance to support/help desk positions; certifications would be an advantage and/or required.
3. ***Ensure a safe, sustainable environment that promotes learning, communication, diversity and satisfaction among students, faculty and staff*** What is an example of the “rigorous” standards that are employed? The courses meet the Microsoft Office User Specialist certification. This is a nationally industry wide recognized standard. Give an example of enriching subject matter that builds critical thinkers and satisfied learners. Each project has a workplace senorio for which the student must find/create a solution. “For example…..”
4. ***Enhance our physical and technological infrastructure to support changes in the learning and work environment*** What is an example of “current and relevant” technology that is being used? MS Excel
5. ***Expand partnerships with Universities to provide advanced degrees to Pinal County*** ***residents*** How many of the AAS and certificate credits currently transfer to the four year universities? Can current classes be re-articulated so that more of them needed for the AAS degree transfer? This is not nor will it ever be a transfer degree. Employment and pay are based on skills not degrees. Have any internship programs with local businesses been explored? Yes, students are give information about businesses looking for interns.
6. ***Obtain approval from the state and regional accreditation body to offer baccalaureate degrees at CAC*** Why have no efforts been made in this area? Is it due to the fact that there is only one full time faculty member in this program? This is not nor will it ever be a transfer degree. Employment and pay are based on skills not degrees.
7. ***Optimize fiscal resources that support the needs and expectations of students and the community Contribute to the economic vitality, workforce development, and job training needs of Pinal County and surrounding region*** What is an example of a cost-effective solution? How is it determined that students possess the knowledge and resources? A major concern regarding the fiscal resources is that the program seems to not be adequately funded due to a lack of up to date equipment and software. New computers and software are being rolled-out district wide. Completion date of August 2018
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| **Success of Program in Engaging in Continuous Quality Improvement:*** What is an example of an Operational Goal that was set for the program? What were the measureable results of it? How was the program adjusted or improved based on the efforts and measureable outcomes put into achieving the goal? Update the curriculum to align with industry requirements. This was completed Fall 2017.
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| **Evaluation of Program Effectiveness** |
| **Success of Students in Achieving Appropriate Learning Outcomes:*** How are the learning outcomes being assessed? Is there a capstone course that has a common assessment? Has there been any data collected on assessments such as assignments and exams? Students repeat the assignments until the skill is mastered.
* Can a common end of program assessment or survey be given to students getting ready to graduate with a certificate or AAS degree to determine their readiness to begin their careers? Can a survey be given to employers to determine the skills that they want graduates to possess upon completion of the program? Arizona@Work collects this data and provides it freely to CAC.
* How are CSLO’s assessed? Is there a common assessment done in a common course that must be taken by all students in the program? Is there any data from the assessment? Has the results of the assessment resulted in any refinement or adjustment in the courses’ curriculum? All sections of a course contain the exact same material.

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| **Success of Students in Completing CAC Program:** * In 2016-2017 – There were 1173 students enrolled in the program (down from 1500 in 2012-2013) and no student graduated with an AAS degree and only 1 student with a certificate. Why are students not graduating with an AAS degree? Are the courses non-transferable to a 4 year college? Are students not declaring? Most students take just the classes they need to get the skills required by the employer. Employment and pay in this career filed is based on skills not degrees.
* Apparently, the college does not collect this data—“must rely on student to inform of their completion and success.” Another issue is that “It appears most students are meeting their job placement or job advancement goal with specific classes. They do not need to complete the degree which requires general education classes.”
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| **Success of Students Upon Departure from CAC:*** Can surveys (qualitative data) be collected from students in the program?
* Can a questionnaire be given to local businesses at one of the yearly advisory meetings? BUS/CIS advisory meeting do poll attendee, however most employers of this career field are government agencies, title companies, engineering firms, manufacturing companies, etc. who do not attend.
* How many students go on to get a degree at a 4 year college in this discipline? CAC does not collect that information. AZTransfer is investigating the possibility of collecting that information.
* As stated, “We do not have an effective mechanism in place to track employment of graduates.”
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| **Evaluation of Program Viability** |
| **Evaluation of Enrollment Trends:*** The viability of the program is a concern. It was stated that the program is staffed by only one full time faculty member who concentrated on programming; therefore, it has resulted in a lack of feedback on the program. Has it also impacted curriculum development and Continuous Quality Improvement? Also, why is the AAS degree graduation rates at 0 (for the past 3 years, and certificate graduates only 4 for the past 4 years) Unable to provide information trend and graduation rates. With the retirement of the 1 faculty, the program has been reassign. Updated curriculum was approved to start Fall 2018. Goals in marketing are employer-student experiences are being developed.
* Can this degree program be re-articulated so that it is not a non-transferrable (“terminal degree”)? No
* Classes are low on enrollment which makes it difficult to fill classes and can only be offered via ITV to several campuses to get them to make.
* Enrollment has steadily decreased over the past five years. When the economy is good, employers will train on the job. Sending employees to specific classes only. When the economy is struggling, DES, FFA pay students to go to college.
* There is a lack of ITV rooms for the overlay courses. No longer a problem with new technology acquired by CAC.
* Would more modern technology lead to higher enrollment? Nothing in addition to the equipment currently being deployed.
* Have any surveys been given to employers to determine what type of software and equipment knowledge is the most valuable for graduates of this program to have? Yes, this information is gathered by Arizona@Work and others.

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| **Evaluation of Need for Program Based on Economic/Job Market Conditions or Transfer Opportunities:*** The data provided on needs for the job market indicates need for the program; however, it is a “terminal” degree that does not transfer. No data was able to be obtained for employers in Pinal County that validates the need for the program.
* Self-study stated in program curriculum twice the “difficulty in relating possible employment,” although the skills taught correspond to the Microsoft Office specialist certifications. Information on the job market was provided in related fields: Secretaries & Admin. Assistants, and Office Clerks (general), both with projected growth (+17% and +19%).
* What specific skills are needed for the profession? See appendix
* Updated software is necessary.
* How can the program prove that these computer skills are necessary for employment in related fields? Collecting our own data may be redundant when government agencies collet the needed data.
* Did the most recent change to the curriculum help to make the program more effective? No, Fall 2018 changes are under investigation
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| Evaluation of Program Viability Based on Adequacy of Resources:* It was noted that the software needed has not been difficult since the college is behind in getting Windows 10 which makes it difficult for both online and face to face students since their Microsoft 2016 software is not compatible with Office 2013 which the college currently has. Needed hardware updates are also causing great lag time for students.
* Only one full-time faculty over last 5 years
* Budget restraints in updating to Office 2016 in a timely manner to correspond with student needs.
* Behind in upgrade to Windows 10 – even though it could have been free. It was stated: “We are the mercy of the IT department’s budget.”
* The current campus computers are extremely behind in upgrades.
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| **Indicate Panel Reviewers Recommendation for Program:** |
| **3 =** Viability of the program is in question. It seems that a lack of resources has led to students not having access to upgraded software and computers that are necessary for the program. The institution needs to be solicited to get funding to update equipment and software if the program is to become viable. Also, should the AAS degree program be eliminated or combined with another program? It seems the certificate program is more viable than the AAS degree.  |
| **Panel Reviewers Make One of the Following Recommendations Regarding the Program Under Review:** **1. Continue a Program of Exceptional Quality:** Continuation of the program is recommended without reservation. The reviewers wish to note the exceptional quality of the program. The program is not only seen as valuable to CAC students, a commitment to student’s academic and personal success is clearly evident. The program demonstrates a commitment to continuous quality improvement. The long term viability of the program appears excellent. **2. Continue a Program of Quality:** Program approval is recommended. Reviews have identified areas of achievement but also specific areas that need to be further addressed. The program meets all evaluative measures of quality and viability, but nonetheless could improve in substantial ways **3. Conditionally Continue a Program:** Conditional approval is recommended with identification of specific areas requiring significant improvement. Improvements needed and a reasonable time frame for them to be made will be given. Viability of the program may be in question. **4. Discontinue a Program:** A recommendation to discontinue a program is made if after receiving a conditional recommendation in the previous academic program review the program has failed to make necessary improvements. A recommendation to discontinue a program can be made even in the absence of a previous conditional recommendation if the quality or viability of a program is dismal. *\*Receiving this recommendation does not automatically mean a program will be discontinued. It is merely the recommendation of the review panel. This recommendation means that the College should seriously evaluate discontinuing the program.*  |
| **Panel Reviewers Recommendation for Program Action Plan:** |
| The reviewers noted the strengths of the program, and would like to recommend the following actions to be considered when working with the dean to develop an action plan as a result of the Academic Program Review process. **STRENGTHS:** * The job market indicates a need for the program
* The program learning outcomes seem appropriate
* The program curriculum has been updated by removing some classes and adding others to improve the program.
* Availability of classes has been expanded to 4 campuses
* Program seeks to provide timely skills that lead to lifelong gainful employment
* Skills taught correspond to Microsoft Office Specialist certifications
* The reassignment of the AAS and the Certificate to the CBA area seems to be a better fit.

**ACTION PLANS RECOMMENDED:*** Develop a mission and vision statement for the program
* Re-articulate the program to make it a transferrable degree to increase the AAS graduation rates
* Make a strategy to increase certificate completers
* Gather quantitative and qualitative data on MSLO’s, CSLO’s and Continuous Improvement
* Look for opportunities to interact with Pinal County businesses to create partnerships and internships and to get feedback on students in the field that took classes in this program
* Consider whether the program is viable or not, and find ways to make it more viable.
* Need to create method of tracking student graduate success
* Need a broad assessment tool that captures success of program as a whole
* Marketing: CBA degree options need to be included in college marketing materials; increase outreach to local high schools; offer evening ITV classes, as need has been voiced by older adults
* Address budget needs to cover basic resources and updated software to maintain an updated program
* Need for computer labs beyond SPC
* Need for qualified tutors in CIS beyond 120, and for programming classes
* Can this be done?
* Information on CIS110 for advising purposes—clarify its practicality/applications, even though it does not transfer (this program is not intended for transfer)
* Consider offering just the certificate rather than as an AAS degree
* Can CIS 110 be re-articulated so that it is a course that transfers? Or, can it be made into a one credit developmental course such as CIS 095?
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**Appendix**

Secretaries & Admin. Assistants, and Office Clerks (general)

 Highlighted items are directly taught in program:

**Tasks**

Use computers for various applications, such as database management or word processing.

Answer telephones and give information to callers, take messages, or transfer calls to appropriate individuals.

Create, maintain, and enter information into databases.

Set up and manage paper or electronic filing systems, recording information, updating paperwork, or maintaining documents, such as attendance records, correspondence, or other material.

Operate office equipment, such as fax machines, copiers, or phone systems and arrange for repairs when equipment malfunctions.

Greet visitors or callers and handle their inquiries or direct them to the appropriate persons according to their needs.

Maintain scheduling and event calendars.

Complete forms in accordance with company procedures.

Schedule and confirm appointments for clients, customers, or supervisors.

Make copies of correspondence or other printed material.

Locate and attach appropriate files to incoming correspondence requiring replies.

Operate electronic mail systems and coordinate the flow of information, internally or with other organizations.

Compose, type, and distribute meeting notes, routine correspondence, or reports, such as presentations or expense, statistical, or monthly reports.

Open, read, route, and distribute incoming mail or other materials and answer routine letters.

Provide services to customers, such as order placement or account information.

Review work done by others to check for correct spelling and grammar, ensure that company format policies are followed, and recommend revisions.

Conduct searches to find needed information, using such sources as the Internet.

Manage projects or contribute to committee or team work.

Mail newsletters, promotional material, or other information.

Order and dispense supplies.

Learn to operate new office technologies as they are developed and implemented.

Perform payroll functions, such as maintaining timekeeping information and processing and submitting payroll.

Collect and deposit money into accounts, disburse funds from cash accounts to pay bills or invoices, keep records of collections and disbursements, and ensure accounts are balanced.

Coordinate conferences, meetings, or special events, such as luncheons or graduation ceremonies.

Arrange conference, meeting, or travel reservations for office personnel.

Establish work procedures or schedules and keep track of the daily work of clerical staff.

Develop or maintain internal or external company Web sites.

Prepare and mail checks.

Supervise other clerical staff and provide training and orientation to new staff.

Train and assist staff with computer usage.

Prepare conference or event materials, such as flyers or invitations.

**Technology**

Accounting software — Fund accounting software Hot technology ; Intuit QuickBooks Hot technology ; Sage 50 Accounting Hot technology ; Tax software Hot technology

Backup or archival software — Veritas NetBackup Hot technology

Business intelligence and data analysis software — IBM Cognos Impromptu Hot technology ; Oracle Business Intelligence Enterprise Edition Hot technology

Calendar and scheduling software — Appointment scheduling software

Customer relationship management CRM software — Blackbaud The Raiser's Edge Hot technology ; Salesforce software Hot technology

Data base management system software — Apache Hadoop Hot technology

Data base reporting software — SAP Crystal Reports Hot technology

Data base user interface and query software — Blackboard Hot technology ; Data entry software Hot technology ; Microsoft Access Hot technology ; Yardi Hot technology (see all 5 examples)

Data mining software — Data warehouse software

Desktop publishing software — Adobe Systems Adobe InDesign Hot technology ; Microsoft Publisher Hot technology

Document management software — Adobe Systems Adobe Acrobat Hot technology ; Filing system software

Electronic mail software — IBM Notes Hot technology ; Microsoft Exchange Server Hot technology ; Microsoft Outlook Hot technology

Enterprise application integration software — IBM WebSphere Hot technology

Enterprise resource planning ERP software Hot technology — IBM Maximo Asset Management; Oracle PeopleSoft Hot technology ; people@work; SAP Hot technology (see all 11 examples)

Enterprise system management software — IBM Power Systems software Hot technology

Financial analysis software — Delphi Technology Hot technology ; Oracle E-Business Suite Financials Hot technology

Graphics or photo imaging software — Adobe Systems Adobe Illustrator Hot technology ; Adobe Systems Adobe Photoshop Hot technology ; Microsoft Visio Hot technology

Human resources software — ADP Workforce Now Hot technology ; Human resource management software HRMS Hot technology

Information retrieval or search software — LexisNexis Hot technology

Internet browser software — Mozilla Firefox; Web browser software

Medical software — Healthcare common procedure coding system HCPCS Hot technology ; Medical condition coding software Hot technology ; Medical procedure coding software Hot technology ; MEDITECH software Hot technology

Office suite software — Microsoft Office

Operating system software — Handheld computer device software Hot technology ; Oracle Solaris Hot technology

Presentation software — Microsoft PowerPoint Hot technology

Project management software — Microsoft Project Hot technology ; Microsoft SharePoint Hot technology ; Oracle Primavera Enterprise Project Portfolio Management Hot technology

Spreadsheet software — Microsoft Excel Hot technology

Time accounting software — Timekeeping software

Transaction security and virus protection software — McAfee Hot technology ; Symantec Hot technology

Video conferencing software — Web conferencing software

Voice recognition software — Dictation software

Word processing software — Microsoft Word

Hot technology Hot Technology — a technology requirement frequently included in employer job postings.