**Academic Program Review: Self-Study**

***Instructions:*** *The following pages will guide your submission of your comprehensive self-study. Please type your responses directly into the document. The completed self-study instrument and all attachments must be submitted to the Academic Program Review Coordinator by September 1.*

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| **Program Under Review** |
| Degree(s):  Agriculture Associates of Applied Science  Agriculture Associates of Applied Science-Equine Management and Training  Agriculture Associates of Arts  Agriculture Associates of Science |
| Certificate(s):  Agriculture Business  Agriculture General  Equine Management and Training |
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| **Program Mission** |
| What is the description of the program as stated in the current CAC catalog?  Ag AS Degree  Students earning the Agriculture A.S. Degree may transfer to a university to pursue a Bachelor of Science Degree in Agriculture.  Ag AA Degree  Students pursuing this Agriculture A.A. Degree may transfer to a university to pursue a Bachelor of Arts Degree in Agriculture  Ag AAS Degree  The A.A.S. Agriculture General Degree prepares students for entry-level careers in agribusiness, agricultural systems management, and agricultural sustainability. This A.A.S. Degree transfers to the Arizona Bachelor of Applied Science (BAS) Degree. Students interested in pursuing a baccalaureate degree should review Transfer Agreement Options and meet with a CAC agriculture advisor.  Equine AAS Degree  Equine Management and Training contains two options for the Associate of Applied Science Degree. Students complete a Horse Trainer or an Equine Business Management program of study. The degree prepares students for employment in a variety of areas in the horse industry. Classroom activities and practical laboratory experiences are provided in both options  Ag General Certificate  This Certificate introduces students to agricultural science and technology by focusing on general academic experiences in agriculture. This Certificate prepares students for entry-level careers in agri-science and agribusiness  Equine Certificate  The Equine Management and Training Certificate provides basic skills and information for equine handling. Courses for the certificate apply toward completion of the Equine Management and Training A.A.S Degree.  Agribusiness Certificate  This Certificate provides students with specialized agricultural workplace skills for entry-level agribusiness position  What is the mission of the program:  We aspire to excellence as we recruit, prepare, and support individuals in agricultural careers. |
| Describe how the program mission and or vision aligns with the College’s Mission:  Central Arizona College engages our diverse communities in quality learning experiences for lifelong success by providing accessible, educational, economic, cultural, and personal growth opportunities. Central Arizona College’s Agriculture mission statement supports the achievement of CAC’s mission statement through lifelong learning opportunities, personal growth and career success. We support community educational programs focused upon providing better jobs and a better life. |
| What are the outcomes for the degree or certificate as currently indicated by ACRES:  In addition to the outcomes and standards of the required agriculture courses, the following degrees have general education outcomes and standards (e.g. math and English) and elective outcomes and standards.  Ag AS   1. (Evaluation Level) Explain and evaluate the importance of plants in our environment in relation to complex agriculture systems. CSLO 2  2. (Synthesis Level) Construct a computerized agricultural accounting system for economic analysis of agribusinesses. CSLO 3  3. (Synthesis Level) Summarize the functional anatomy of domestic animals and relate their importance to societal needs. CSLO 4  4. (Evaluation Level) Contrast the multiple uses of renewable energy including; forestry, range management, wildlife conservation and water. CSLO 1  5. (Evaluation Level) Compare and contrast the components of plant and animal cells through creation of models. CSLO 2  6. (Evaluation Level) Assess and describe the problems feeding the world's population to include; food production, social demographics, infrastructure, government and environment. CSLO 1  7. (Evaluation Level) Calculate and interpret agricultural data sets from analytical geometry and calculus applications. CSLO 4   Ag AA  1. (Evaluation) Explain and evaluate the importance of plants in our environment in relation to complex agriculture systems. CSLO 2  2. (Synthesis) Construct a computerized agricultural accounting system for economic analysis of agribusinesses. CSLO 3  3. (Synthesis) Summarize the functional anatomy of domestic animals and relate their importance to societal needs. CSLO 4  4. (Evaluation) Contrast the multiple uses of renewable energy including; forestry, range management, wildlife conservation and water. CSLO 1  5. (Evaluation) Compare and contrast the components of plant and animal cells through creation of models. CSLO 2  6. (Evaluation) Assess and describe the problems of feeding the world's population to include; food production, social demographics, infrastructure, government and environment. CSLO 1  Ag AAS   1. (Comprehension Level) Identify and describe the various taxonomic systems for plants and animals. CSLO 3  2. (Knowledge Level) Describe the anatomy and tissues of the root, stem, leaf and flower. CSLO 2  3. (Comprehension Level) Discuss the importance of photosynthesis and respiration in plants. CSLO 4  4. (Evaluation Level) Describe and evaluate the impact of genetics and biotechnology research in plants and animals. CSLO 4  5. (Comprehension Level) Define and discuss the concept of natural resources as it relates to agricultural production. CSLO 1  6. (Application Level) Sets up a computerized agricultural database in excel. CSLO 3  7. (Synthesis Level) Demonstrate knowledge of microcomputer components, their use and applications in agriculture and associated businesses. CSLO 3  8. (Evaluate Level) Evaluate the fundamental marketing and distribution principles of animal, dairy, and poultry science. CSLO 2  9. (Analysis Level) Identify the principles of animal genetics in domestic animal production. CSLO 4  10. (Evaluation Level) Compare and contrast the functional anatomy and physiology of domestic animals. CSLO 2   Equine AAS  1. (Knowledge Level) Define and list the most common tack, and describe its uses.  2. (Evaluation Level) Explain the diversity of the equine industry, and the problems and opportunities this diversity creates.  3. (Evaluation Level) Assess the capacity for the horse to perform as an athlete.  4. (Comprehension Level) List and explain the natural motivations and behavior of the horse.  5. (Synthesis Level) Collect information and create a business plan in the equine industry.  6. (Synthesis Level) Develop proper safety concerning horsemanship and handling of horses.  7. (Application Level) Demonstrate creative solutions to problems and demonstrate independent critical and analytical thought.  8. (Evaluation Level) Identify and evaluate proper safety techniques concerning horsemanship.  9. (Synthesis Level) Produce equine events, including developing a budget, marketing plan, personnel management plan and strategies for adhering to regulations and reporting functions.  10. (Application Level) Demonstrate safe handling of animals 100% of the time.  11. (Evaluation Level) Demonstrate and justify skills used in properly caring for and preventing equine ailments.  12. (Application Level) Demonstrate handling skills for a variety of different equine activities, per given project plan/instructions.  Ag General Certificate  1. (Comprehension Level) Identify and describe the various taxonomic systems for plants and animals.  2. (Comprehension Level) Describe the anatomy and tissues of the root, stem, leaf and flower.  3. (Evaluation Level) Identify and justify the importance of photosynthesis and respiration in plants.  4. (Evaluation Level) Describe and evaluate the impact of genetics and biotechnology research in plants and animals.  5. (Knowledge Level) Identify the five key functions of soil in our ecosystem.  6. (Analysis Level) Analyze and relate the influence of the seven soil physical properties to the functions of soil.  7. (Comprehension Level) Define and discuss the concept of natural resources as it relates to agricultural production.  8. (Evaluation Level) Identify, analyze, evaluate and discuss the various methods for insect pest management.  9. (Synthesis Level) Create a computerized agricultural accounting system.  10. (Analysis Level) Demonstrate knowledge of microcomputer components, their uses, and examine applications in agriculture and associated businesses.  11. (Analysis Level) Identify and compare the fundamental marketing and distribution principles of animal, dairy, and poultry science.  12. (Analysis Level) Examine the principles of animal genetics in domestic animal production.  13. (Comprehension Level) Describe the functional anatomy and physiology of domestic animals.  Ag Business Certificate  1. (Comprehension Level) Describe the commodity marketing system including raw materials and undifferentiated food products.  2. (Comprehension Level) Describe the food marketing system beginning with raw materials and ending with the consumer.  3. (Knowledge Level) Identify the purpose and need for agricultural financial records.  4. (Synthesis Level) Develop an enterprise analysis system.  5. (Comprehension Level) Explain accounting principles and rules.  6. (Application Level) Demonstrate knowledge of the role of agriculture in economic development.  7. (Application Level) Demonstrate the ability to use various applications of computer technology for agricultural management and problem solving.  8. (Analysis Level) Calculate appropriate financial ratios from an income statement and a balance sheet.  9. (Comprehension Level) Understand the basic functions of operating a business.  10. (Application Level) Maintain a complete set of accounting records for a sole proprietorship, including the financial statements and completion of the accounting cycle.  11. (Synthesis Level) Utilize accounting information to make business decisions.  12. (Application Level) Identify and apply leadership critical thinking skills.  13. (Application Level) Use writing and reading for inquiry, thinking, learning and communicating.  Equine Certificate  1. (Knowledge Level) Define and list the most common tack, and describe its uses.  2. (Evaluation Level) Explain the diversity of the equine industry, and the problems and opportunities this diversity creates.  3. (Evaluation Level) Assess the capacity for the horse to perform as an athlete.  4. (Comprehension Level) List and explain the natural motivations and behaviors of the horse.  5. (Synthesis Level) Collect information and create a business plan in the equine industry.  6. (Synthesis Level) Develop proper safety concerning horsemanship and handling of horses.  7. (Synthesis Level) Develop creative solutions to problems and demonstrate independent critical and analytical thought.  8. (Knowledge Level) Discuss proper safety techniques concerning horsemanship.  9. (Synthesis Level) Produce equine events, including developing a budget, marketing plan, personnel management plan, and strategies for adhering to regulations and reporting functions.  10. (Application Level) Demonstrate safe handling of animals.  11. (Evaluation Level) Demonstrate skills to properly care for and prevent equine ailments.  12. (Application Level) Demonstrate handling skills for a variety of different equine activities, per given project plan/instructions. |
| Who is responsible for reviewing and updating the outcomes:  All faculty are responsible for updating and reviewing outcomes in a 5-year review process or as needed by industry. We evaluate courses with our advisory committee annually. |

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| **Program Enrollment and Graduation Trends** |
| Summarize the program enrollment trends for the past 5 years in chart below:   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | **2006-2007** | **2007-2008** | **2008-2009** | **2009-2010** | **2010-2011** | **2011-2012** | **2012-2013** | **2013-2014** | **2014-2015** | **2015-2016** | | **AGB** | 85 | 85 | 108 | 103 | 158 | 165 | 167 | 126 | 128 | 127 | | **AGS** | 140 | 114 | 132 | 151 | 159 | 195 | 204 | 205 | 238 | 274 | | **ANS** | 44 | 63 | 70 | 95 | 83 | 90 | 79 | 94 | 89 | 115 | |

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| What factors are influencing enrollment trends:  In Agribusiness (AGB), from 2006-2013 the program has increased 96% . In 2013 the maximum load for instructors was capped at 22 credits. Since 2013 enrollment has remained level. We forecast that by adding an agribusiness faculty this program would mirror the 100%+ growth in our ANS and AGS prefixes and support the development of a pathway program.  In agri-science (AGS), between 2006-2016 we have seen a 96% increase in enrollment during this period. Courses are generally AGEC approved. In addition these courses are extremely popular among students on campus and generally fill within the first 30 days of registration.  In Animal Science (ANS) from 2006-2016 we have seen a 161% increase in enrollment. This is due to the development of the equine management degree and certificate. The development of new courses including ANS 104 that meets the CAC AGEC historical and humanities degree requirements.  Discuss and explain the factors influencing enrollment trends:  Factors that led to successes in the above areas   * Additional Adjunct Faculty * Strong Articulation with Universities * Diversity of Ag AGEC Offerings * Nationally Ranked Rodeo Program * Rodeo Coach of the Year-Joe Moody (He’s kind of a big deal) * FFA Field Days for Recruitment * Ag Faculty Student Advising |
| How has the program typically recruited students and marketed program:   * Collaborated with area High Schools for Programs of Study-Prep Classes * Collaborated with Arizona Crop Protection Association for coursework required for licensing * Updated CAC Agriculture web page * Hosted annual Dean Merrell Memorial FFA District Field Day in Spring for 350 prospective students * Hosted an annual Fall FFA Leadership Day for 100 prospective students * CAC Ag Club Students in Ag Events at the County Fair * Each instructor visits schools to promote CAC * Hosted Pinal County Junior Livestock Carcass Contest * Faculty participate in STEM nights * Developed and implemented USDA HSI Grant Project Puente $270,000 |
| Summarize the program graduation rate trends for the past 5 years in the chart below:  Information received from the Department of Institutional Research regarding graduation trends was viewed as incomplete by the CAC AG Department.  Discuss and explain the graduation trends.  National student clearinghouse data indicates 132 students enrolled in agricultural programs 2012-2015. The data indicates approximately 15% received CAC agriculture degrees. Due to confusion in the ability to declare a major, Ag graduates sometimes complete AA degree without specifically completing the AA in Agriculture. However these students transfer to the university and complete a Bachelor’s degree in agriculture.  What efforts has the program made to help students achieve completion?  We have 4 faculty advisors to support student registration and department advising. |

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| **Program Curriculum** |
| **Using information gained from your curriculum comparisons, discuss the strengths and weaknesses of the current program curriculum for each degree or certificate** |
| Discuss how the program gets feedback on its program and curriculum from external **sources, such** as advisory boards or employers. Articulation task forces, accreditations  Our Agricultural Council is comprised of agricultural businessmen and educators representing Pinal County and the University system. The council reviews the current academic programs and advises on the development of new programs and courses. We have developed strong articulation agreements with the universities which include pathways and 2+2 programs. |
| Discuss any external accreditations which the program has. Are there any available accreditations which the program does not have, but maybenefit from seeking?  None have been identified; faculty is researching opportunities in external accreditation. |
| Discuss how the program meets current or future needs for the job market in Pinal county, state of Arizona and/or United States:  Central Arizona College has offered programs in Agriculture since 1971. Over the years, we have launched careers in dairy management, crop production, agricultural finance and insurance, agricultural education, plant & animal genetics, natural resource conservation and wildlife management.   |  | | --- | |  | |  |     Common Agriculture Career pathways include:   * Natural Science * Environmental Science * Veterinarians * Ag Business and Finance * Bio-Tech * Life Sciences * Agriculture Education * Animal Control and Training * Governmental * Sales and Services * Farming     It is common knowledge we are in a highly competitive global economy, and a college education has never been more important.  According to the U.S. Department of Labor, “about 90 percent of the fastest-growing jobs of the future will require some postsecondary education or training.”   The Organization for Economic Co-operation and Development reports, “College graduates in the U.S. earn nearly twice as much as workers with just a high school diploma, one of the highest rates in the world.”  The Agriculture Department has seen the need to transition from conventional agriculture to greater technical agriculture training. The industry has a greater demand for employees with technical background to provide the needed services and products. We believe strongly about career awareness and offer our students opportunities to interact with members of the local industry. We have been successful in securing internships to facilitate real life work experience. |
| If your degree is a transfer degree please answer the following question:  For Degree programs, identify any specific in-state baccalaureate programs into which this program is specifically suited to transfer  ASU   * Agribusiness * Sustainability BS * Sustainability BA   U of A   * Agribusiness Economics and Management * Agricultural Technology Management and Education * Animal Sciences * Biosystems Engineering * Crop Production * Environmental and Water Resource Economics * Environmental Sciences * Family Studies and Human Development * Microbiology * Natural Resources * Nutritional Sciences * Plant Sciences * Retailing and Consumer Sciences * Pre-Veterinary Science   NAU   * Forestry   Indicate any articulation agreements in place for degree graduates.  University of Arizona   * Ag Ed BS 2+2 * Ag Tech Management BS 2 +2 |

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| **Program Resources** |
| Discuss the adequacy of the financial and budgetary resources available to the program over the past 5 years:  Within the last 5 year the agriculture program has added additional courses and an operational greenhouse without budget and a line item to support it. On the 2017 budget we have gained additional funds to support operation of the greenhouse. In the future we will need to seek an increase in instructional supplies to compensate for the additional courses and inflation. Our department offers 37% of the SPC AGEC science courses. Lab consumables for science courses are traditionally more expensive than lecture-only courses. Our current instructional supply budget limits us to $25.35 per credit hour. In the next fiscal period we will be requesting additional funds. |
| Discuss the adequacy of the human resources available to the program over the past 5 years:  Currently our program necessitates the addition of an agribusiness full time faculty. We have courses that are completely full and due to the high demand for highly qualified agriculture professionals in the region are unable to find additional properly qualified adjuncts. We have determined the need for a 2 + 2 program with Arizona State University and University of Arizona in Agribusiness. We require the addition of one full time faculty to lead the charge on instructing and creating these pathways. |
| Discuss the adequacy of the technological resources available to the program over the past 5 years:  Technology has been adequate to facilitate a proper learning environment in the classroom. In the future we would like to bring in additional technology into the classroom and will be working with IT to ensure a smooth integration.   * Ultrasound machine * Agribusiness Futures Software |
| Discuss the adequacy of the physical (building space, classrooms, labs, etc) resources available to the program over the past 5 years:  We recommend that CAC give the highest priority to a capital construction project for the Agriculture Department: Livestock/Equine Education Facility.  We have requested the following in our capital request for the last 18+ years:  Operational Plan Goal:  Increase hands on lab activities within agriculture curriculum and programs: We support construction of a new livestock facility to meet USDA guidelines. This would provide instructional lab environments on currently dedicated agricultural campus property. The college currently has resources; land with grandfathered water rights, which could be used by the Agriculture Department for instruction and lab demonstrations that are not being used.  Physical facilities are not adequately serving the students. There are needs for additional livestock, outdoor classroom and lab facilities at the rodeo arena. The current animal husbandry and livestock training courses are forced to use makeshift equipment and facilities to allow the students hands on experiences to meet the curriculum standards. This presents a safety hazard to the students and doesn’t allow for a smooth transition into industry.  RODEO-ARENA-300x200.jpgcattle-barn.jpg |
| Discuss the adequacy of the academic support resources available to the program and its students over the past 5 years:  Outstanding assistance and communication from the SPC Library and staff. Agricultural references are purchased annually and library staff always responds to department requests. The learning center continues support our programs and has added a CTE specific program tutor. Students believe that the learning center should be available on Fridays and Saturdays. Introduction of the STEM program has aided student with tutors, technology and equipment in the classroom to promote agriculture student success. The **TRIO** Program is an educational opportunity outreach program designed to motivate and support students from disadvantaged backgrounds. |
| Discuss the adequacy of the student support resources available to the program and its students over the past 5 years:  Institutional support is adequate in registration, advising and counseling. Financial Aid services meets the needs of current students, however students need support regarding University transfer expenses and requirements. Student employment services have supported work-studies in the agriculture program; we would recommend an electronic payroll system for the students within this program. |

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| **Program Effectiveness** |
| Describe how you measure the success of the degree and certificate program graduates in achieving the degree and/or certificate program student learning outcomes. What data have you collected that indicate the level of student success of these outcomes? And according to the data, how well have students achieved these outcomes during the past 5 years?  The general education outcome from the course catalog indicates that you have 19-23 general education courses such as:   * ENG 101   Agriculture students successfully research and write assignments including narratives, descriptive, expository, argumentative essays in natural resources and agribusiness.   * COM course   Agriculture students successfully prepare, discuss, debate, negotiate, present topic in agriculture.   * Art and Humanities   Agriculture students successfully evaluate agricultures impact upon cultures, demographics and gender roles throughout history.   * AGS 122 Natural Resources and Conservation   Agriculture students successfully evaluate diversity in natural resources including soil, water, energy, forest and wildlife. Students analyze issues surrounding population growth, hunger issues, and population demographics.   * AGS 240 Plant Biology and additional Science course   Agriculture students successfully demonstrate scientific skills including problem solving using the scientific method, lab techniques, data collection and data analyzation.   * BUS 101 or MAT 118 or MAT 151   Agriculture students successfully formulate ratios, develop probabilities, calculate percentage, scientific  conversion and develop financial records.  Program Measurable Student Learning Outcomes:   |  |  |  | | --- | --- | --- | |  |  | 1. (Comprehension level) Identify and describe the various taxonomic systems for plants and animals.   * Plant collections AGS 101 * Test ANS 215 * Labs AGS 240 * Labs AGS 235 * Test ANS 101 * Test ANS 216   2. (Knowledge level) Describe the anatomy and tissues of the root, stem, leaf and flower.   * Labs AGS 101 * Labs AGS 240 * Labs AGS 235   3. (Comprehension level) Discuss the importance of photosynthesis and respiration in plants.   * Labs AGS 101 * Labs AGS 240 * Labs AGS 235   4. (Evaluation level) Describe and evaluate the impact of genetics and biotechnology research in plants and animals   * AGS 104 Environmental Ag-Debate and Essay Questions * ANS 104 Domestication-Discussion * ANS 213 Discussion * ANS 216 Discussion * AGS 101 Essay questions | |  | |  | | 5. (Knowledge level) Identify the five key functions of soil in our ecosystem.   * Labs AGS 221   6. (Analysis level) Analyze and relate the influence of the seven soil physical properties to the functions of soil.   * Labs AGS 221   7. (Comprehension level) Define and discuss the concept of natural resources as it relates to agricultural production.   * AGS 122 Essays and discussions   8. (Evaluation level) Analyze, identify, and discuss the various methods for insect pest management.   * AGS 106 Insect collection and discussions   9. (Application level) Set up a computerized agricultural accounting system.   * AGB 123 Assignments   10. (Synthesis level) Demonstrate knowledge of microcomputer components, their use and applications in agriculture and associated businesses.   * AGB 124 Assignments * ANS 226 Ration Project   11. (Comprehension level) Identify the fundamental marketing and distribution principles of animal, dairy, and poultry science.   * AGB 213 Tests * AGB 100 Assignments * AGB 204 Marketing Plan * ANS 101 Labs   12. (Analysis level) Identify the principles of animal genetics in domestic animal production.   * ANS 104-Final Breed Presentation * ANS 213 Discussions and assignments * ANS 200 Discussions and assignments * ANS 216 Discussions and assignments * 13. (Comprehension level) Describe the functional anatomy and physiology of domestic animals * ANS 101 Discussions and assignments * ANS 215 Discussions and assignments * ANS 200 Discussions and assignments * ANS 216 Discussions and assignments * ANS 111 Discussions and assignments * ANS 211 Discussions and assignments | |  |  |  | |  | |  | |  | |
| If you have data which indicates the degree to which students in the program are achieving the college’s Common Student Learning Outcomes please share and explain data  2014-2015 120 AGS 240 students successfully completed Arizona CTE Plant Biology Assessment-CSLO 3  Successful employment and internship- 25 AGS 296 Internship completers-CSLO 3  2014 and 2016 Students participated in ETS Educational Testing Service-CSLO 2-4  We have linked our PMSLO’s to the college CSLO’s and program wide direct assessment in the Fall of 2016. The program has data on all CSLO’s except CSLO 1 in which we have qualitative data of student success in the following courses:  Natural Resource and Conservation  Environmental Agriculture  Environmental Sustainability  In the future we will be focusing on achieving quantitative data for CSLO 1 with degree embedded assessment while maintaining assessment data in the three other areas. |
| How many program enrollees or graduates studied at an in-state baccalaureate level institution in the past 5 years? Put the data in chart below  14.83% Faculty can document additional 0007 agriculture, 1500 agriculture, and 1501 agriculture graduates not included in the numbers obtained through institutional research.  Based on data provided by Gina Carlock research assistant for CAC, 15 degree completers transferred to another institution. The methodology for acquiring the student data via Institutional Research does not collect all the graduates due to incomplete major declarations and degree achievement. The methodology for tracking student transfer is linked to FAFSA. The problem with this system is many students do not complete FAFSA and thus are not recorded as transfer students. |
| I f a degree is intended for transfer, or has transfer articulation agreements in place, indicate how the degree program supports with continuing their education at CAC or other institutions?   * Yearly meetings with university advisory board and implementation of suggested changes * Course development for needed pathways * Student university transfer support * University faculty guest speakers at CAC * Internships with University of Arizona |
| Describe the level of success programs students achieve at transfer institutions.  Ag Advisory Board academic representatives from universities confirmed high success of our students upon transferring to Universities. Universities send students to Central Arizona College to gain applied educational experiences not always available at the universities. |

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| **Program Continuous Quality Improvement** |
| Discuss how the program has used learning outcome assessment results to improve instruction over the past 5 years:   * AGS 221 Learning outcome assessments supported Fall 2012 CSLO assessment 94.9% met the outcomes * Academic student success in courses * Continuously reevaluating assessments by feedback from students via. ag department surveys * Faculty have implemented tactile learning method in AGS 101 to enhance learning on complex concepts |
| Discuss how the program has used operational planning goals to achieve quality improvement over the past 5 years:  Developed Courses   * AGB 100 Introduction to Agribusiness used to strengthen the articulation between two major universities in agribusiness pathways * ANS 104 Human Animal Interrelationship and Domestication developed to support agriculture student ability to progress through AGEC requirement in the agriculture division * AGS 235 Introduction to Horticulture enhanced through Signal Peak Campus greenhouse construction. * AGS 204 Environmental Sustainability approved by curriculum to meet AGEC social and behavioral and global awareness requirements.   Updated Degrees to link Common Student Learning Outcomes (CSLO) to Program Student Learning Outcomes (PMSLO)   * Will aid in program level assessment   Articulation and Pathways   * Continual articulation with the three universities in the state of Arizona, one member of faculty acts as the Agriculture Advisory Board Chairman for last ten years.   *The Ag Operational Plan was discussed and endorsed by CAC Ag Advisory Board members April 2016* |
| Describe other ways the program has engaged in continuous quality improvement:  The faculty members continually review the classes and programs:   * Every five years courses are updated in ACRES * Course are reviewed at yearly at the Agriculture Articulation Task Force Meetings * The Agriculture Advisory Council reviews curriculum and operational plan at annual meeting * CAC faculty collaborates with University faculty to guarantee academic quality * Faculty members participate on community boards to keep abreast of industry trends * Integrating assessment into our degrees and courses |

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| **Program Alignment with Institutional Goals** |
| Describe how the program has directly or indirectly is helping the College achieve each of its current strategic goals. If you believe the goal is inapplicable to the program indicate so. |
| Strategic Goal 1: Ensure broad access to high-quality innovative educational programs, services and training opportunities for Pinal County residents:   * Faculty members complete 10+ hours Central Arizona College Faculty Development Courses. * Faculty members attended local, state and national agricultural education conferences. * Faculty members serve on college, county and state committees. * Creation of hybrid courses to allow students access to agriculture program   Advance Community Relations and Partnerships   * Faculty members participate in County Tech Prep Articulation with county high schools. * Share college facilities with Pinal County Junior Livestock Association for the purpose of ear-tagging livestock for County fair and carcass contest at San Tan campus in March. * SPC Agriculture Club participates in community service projects and Casa Grande Electric Light parade. * Agriculture Department facilitated the establishment of the Natural Resources Education Center (NREC) at the Signal Peak Campus. NREC is a consortium of Natural Resource Conservation Districts who provide agricultural education to elementary schools. * Developed a partnership with CAVIT to develop curriculum for a Vet Technician program and sits on advisory board for CAVIT Vet Assistant Program |
| Strategic Goal 2: Improve student retention, persistence, completion and job placement:   * Agricultural Department facilitates the advancements of students from recruitment, initial advising through the graduation checklist. Faculty members serve as advisors, club mentors, honors professors, and competitive team coaches. * Agricultural Department utilizes the various educational delivery methods including face to face, hybrid and on-line courses. * AGS 296 Internship course created and support internships leading to job placement in the industry * USDA HSI grant Project Puente facilitates high school to college retention in agriculture |
| Strategic Goal 3: Ensure a safe, sustainable environment that promotes learning, communication, diversity and satisfaction among students, faculty and staff:   * Faculty members utilize course evaluation to improve courses and facilitate student learning. * Faculty continues to recommends evaluation of locks for V building, the classrooms need to be able to be locked inside in the event of an emergency |
| Strategic Goal 4: Enhance our physical and technological infrastructure to support changes in the learning and work environment:   * Greenhouse constructed summer 2014 * Annual budget request for animal handling facilities continues * Perkins funds supports classroom equipment * Renovation of V114, V115 and V116 completed summer 2013 |
| Strategic Goal 5: Expand partnerships with Universities to provide advanced degrees to Pinal County residents:   * 2+2 with University of Arizona College of Agriculture for Ag Education and Ag Tech Management approved summer 2015 * Developing 2+2 with Arizona State University in Agribusiness * Developing 2+2 with Northern Arizona University in Forestry |
| Strategic Goal 6: Obtain approval from the state and regional accreditation body to offer baccalaureate degrees at CAC:   * Ag faculty support administrative efforts toward baccalaureate degrees and has developed 2+2 programs |
| Strategic Goal 7: Optimize fiscal resources that support the needs and expectations of students and the community:   * Budget planning is prioritized on improving student learning environment. * Maximize facilities by offering afternoon and evening classes. * Awarded Project Puente grant of $270,000 |
| Strategic Goal 8: Contribute to the economic vitality, workforce development, and job training needs of Pinal County and surrounding region:   * Students employed in internship courses contribute to local economic vitality * Obtained Carl Perkins funding to gain industry specific equipment for the purpose of creating highly qualified graduates * Maintain collaboration with industry through Agricultural Advisory Committee. Committee members represent state universities, state agriculture departments, and state agricultural businesses to identify needs in the workforce. |