

2020-22 Program Audit Report Due March 24, 2022

In all responses, provide the data (attach or provide links) used to determine the response.

PROGRAM QUALITY:

1. Discuss how the program determines that the courses, certificates, and degrees are still viable and relevant? **This course is designed to follow the Code of Federal Regulations (CFR) 14, Federal Aviation Regulations (FAR) Part 147, Aviation Maintenance Technician Schools.**
2. Does the curriculum meet industry standards? How do you know? What needs to change?
This curriculum does meet the industry standard. This is accomplished by strict adherence to CFR 14 Part 147 of the FAR's. Additions to the curriculum would be accomplished by talking to industry leader, through our Advisory committee, to see what they are looking for in regard to training.
3. Since the last audit (in the last three years), did your program invest in technology or equipment used to improve content delivery or student performance? **Yes**
 - a. If so, please describe the purchase and the impact it has on content and/or student performance.
 - 1- **New facility to accommodate clean and organized work areas for students and a better climate-controlled environment. The facility is also equipped with prerequisites for further technological installations.**
 - 2- **Promethean boards in the classroom have become a tool used daily for presentations and student interaction.**
 - 3- **Multiple displays in the classrooms provide quicker transitions between instructional media.**
 - 4- **Began utilizing distance learning programs such as Canvas to allow students to complete schoolwork while away from the classroom**
4. Select all methods that are used by your program to integrate the academic and technical skills of your students and ensure that they are taught with the same coherence and rigor as all other students, including transfer students.

Please provide short descriptions for each method selected.

- Contextualized Instruction
- Team-Teaching
- Math-First Initiatives
- College-Level Core Curriculum
- College-Wide Student Learning Outcomes
- STEM Initiatives
- Industry Standardized Tests/Exams
- Tutoring
- Flipped Classrooms
- Industry-Standard Equipment/Facilities
- I-BEST CTE Programs
- Other

5. Please provide examples of any innovative projects, initiatives, or state-of-the-art equipment undertaken since the last audit (in the last three years).
Industry standards fuel trainer system replicating common turbine aircraft fuel systems.
Industry standards electrical trainers that replicates the King Air aircraft system.
 - a. Please describe and include attachments of or links to any social media posts and/or press/media coverage, if applicable.
6. What was the most successful or noteworthy development with respect to program quality and/or program improvement since the last audit (in the last three years)?
Replacement of teaching facility and hangar.
A large donation was given from local aircraft manufacture Mitsubishi Aircraft Co. that included tools, equipment, and supplies.
7. What were the most significant challenges (e.g., funding, enrollment, performance, staff retention or turnover, equity, etc.) encountered since the last audit (in the last three years)?
 - a. What impact did the challenge have on the program?
The Covid-19 pandemic was a significant challenge for the AMT in person trade program. Balancing school and FAA requirements resulted in a quick change in policies and procedures that need to be refined as we continue forward.
The program also had a staffing change due to the retirement of a senior faculty member.
 - b. How could BBCC assist in addressing these challenges?
New updated time tracking systems to allow more accurate records of student's time for both in person and remote learning.
Due to the complexity of the program, future known staff changes will be much smoother by hiring a replacement that can be trained before the senior staff member departs.

FACULTY/STAFF PROFESSIONAL DEVELOPMENT:

8. Please provide the dates and a brief description of any professional development in which you participated in since the last program audit (in the last three years).
SUMMER 2021 ESCALA Training (Keith)
SUMMER 2021 Inspection Authorization Certification (Keith)
SUMMER 2021 DME Recertification (Erik)
FALL 2021 Basic Boot Camp (Chris and Keith)
FALL 2021 Integrating Cultural Development (Chris)
FALL 2021 CANVAS Boot Camp 101 (Chris, Keith, and Erik)
WINTER 2022 Inspection Authorization Renewal (Erik and Keith)
WINTER 2022 Fighting 147 Washington School Collaboration (Chris, Keith, and Erik)
9. Did the professional development activities support the required activities in your vocational certification plan? Please describe. (Be sure these are reported so they can be recorded.)
Yes
10. Did any of your program faculty or staff earn industry-recognized credentials or certification since the last program audit (in the last three years)? Please describe.
Keith Starcher acquired Inspection Authorization Certification.

11. What was the most successful or noteworthy development with respect to faculty/staff retention and professional development since the last audit (in the last three years)?
Hired 2 new instructors, one for program expansion and another to replace retired instructor.

12. Select the methods employed to provide professional development opportunities for faculty/staff.

Provide a brief description of each method selected.

- New Instructor/Faculty Conference
- Workforce Boot Camp
- Deans Academy
- Return-to-Industry
- Faculty Peer Mentoring
- Professional Development Days
- CTE Certification Workshops
- Distance Learning/Online Teaching Training
- Technology and E-Learning Tools
- Data and Assessment Workshops
- Industry Conferences
- Other

13. How did the professional development impact your program?

Online teaching with Canvas and the training involved has allowed us to use a hybrid teaching method to FAA standards.

INDUSTRY/COMMUNITY INVOLVEMENT:

14. Describe how this program ensures involvement of stakeholders in the improvement, implementation, and assessment of the program and program development.

Advisory Committee meetings assure that the industry standards are being met.

15. Since the last audit (in the last three years), has course/program content been updated to reflect industry needs/feedback from advisory committee?

a. If yes, please describe how.

b. If no, please describe why not. **We cannot change our content due to FAA regulations**

16. Since the last audit (in the last three years), what noteworthy activities did your program advisory committee undertake? **Connecting students with industry careers. Overseeing new facility construction.**

a. Should these activities be reported/used in outreach/marketing? **Yes**

b. Were there any changes to your committee? **Yes** Have these been reported to Julia? **Yes**

c. Have all minutes been submitted to Julia? **Yes**

d. Has an advisory committee audit form been completed annually? **Yes**

17. Provide information about how this program is involved in building and/or maintaining specific internal and external partnerships/relationships:

a. Internal: list and discuss each partner (examples: Career Services, WES, ASB, Business Office, Registration, etc.) **Yes, we partner with as many services that students require.**

- b. External: list and discuss each partner (examples: business/ industry, Job Corps, WorkSource, labor unions, accrediting agencies, etc.)
- Mitsubishi Aircraft Co.
 - AeroTec
 - Boeing
 - Aircraft Technical Services
 - Southwest Airlines
 - Horizon Airlines
 - Alaska Airlines
 - AeroFlit
 - Columbia Pacific
 - Sonico
 - Life Flight Network
 - And many local agricultural aviation programs
- We collaborate with all of these companies to provide future career opportunities for students. Students have also completed internships with these companies.

K-12 ENGAGEMENT:

18. Does your program provide opportunity for CTE Dual Credit (Tech Prep) articulations with area high schools/skills centers? **Yes**
- a. If yes, could this be expanded? How? **Yes, high school needs to develop and hire an airframe and powerplant certified mechanic.**
 - b. If no, is this an area that can be developed? How? **OR** Why not?
19. Does your program faculty participate in any advisory committees or joint advisory committees at the high school level? If so, please describe. **Not at this time.**
20. Since the last audit (in the last three years), how did your program partner with high schools and districts to engage and recruit students and market your program? **We attend high school job fairs to reach out to students. Also, our local high school has a new introduction class for aviation maintenance school.**
21. Since the last audit (in the last three years), what was the most successful or noteworthy development with respect to high school partnerships?
The Aviation Maintenance General program at the high school.
22. Select all methods employed by your program to engage, recruit, and/or provide career and academic guidance to prospective students.

Please provide a brief description of each method selected.

- High School Visits
- CTE Open Houses
- Try-a-Trade Events
- Youth Re-Engagement Programs
- Mailings featuring Programs of Study and/or Pathway Information
- Community-Based Organization Visits
- Faith-Based Organization Visits
- TV or Web Video Ads

- WorkSource Co-Location
- Veteran Center Visits
- Tribal or Cultural Center Visits
- Corrections Center Visits or Re-Entry Programs
- Labor Union Visits
- Other

TECHNOLOGY:

23. Does your program have the technology available that is needed to prepare students for industry? Discuss.

- a. If YES, **Yes, we meet the current FAA regulation standards**
 - Include how you know it is technology used in business/industry.
- a. If NO,
 - Has your program identified the needed technology or equipment?
 - How do you know this is the technology/equipment that is used in business/industry?
 - Please describe the technology or equipment and share the plan for purchasing or provide the barriers to purchase.
 - Is business/industry an option for providing and/or donating **current** technology/equipment? *(Remember that BBCC cannot become the dumping grounds for outdated or broken equipment.)*

24. Did your department invest in technology or equipment used to improve content delivery or student performance? If so, please describe the purchase and the impact it has had on content and/or student performance.

1. **New facility to accommodate clean and organized work areas for students and a better climate-controlled environment. The facility is also equipped with prerequisites for further technological installations.**
2. **Promethean boards in the classroom have become a tool used daily for presentations and student interaction.**
3. **Multiple displays in the classrooms provide quicker transitions between instructional media.**
4. **Began utilizing distance learning programs such as Canvas to allow students to complete schoolwork while away from the classroom**

25. Provide a current equipment/technology inventory that indicates the following:

- a. When replacement/update is/will be needed
 - Aircraft Weight Scales. (needed now)**
 - Update our turbine PT6 engine with modern propeller reversing system. (FALL 2023)**
 - Avionics need to be updated with upcoming Part 147 regulation changes. (FALL 2023)**
 - Propeller balancing equipment (needed now)**
 - Replace King Air with PC12-45 (Next 5 years)**
 - Turbine Powered Helicopter (Bell 206 Jet Ranger Military Surplus)**
- b. Technology/equipment that is obsolete
 - Avionics, PT6 Runstand**
- c. Technology/equipment that requires repair, disposal, etc.
 - Various airframes, engine components, fuel flow bench for fuel nozzle testing. Soda blaster**

2020-22 Program Audit Report Due June 20, 2022

LAB FEES:

1. Does your program maintain a lab fee account? **Yes.**
 - a. If yes, please answer the remaining questions regarding lab fees.
 - b. If no, should your program consider developing a lab fee account?
 - c. If no, please skip the remaining questions regarding lab fees.

2. Is the lab account balance adequate to cover consumable expenses? **Yes.**
 - a. If no, have fees been reviewed? Why/why not?
 - What is needed to ensure consumables are covered. Discuss.
 - Should this discussion be used to request a fee increase?
 - a. If yes, do fees need to be reduced? Discuss. **No, with the new change to Part 147 regulations there will be new material and supplies to purchase.**

3. Is the lab account balance adequate for purchasing needed equipment/technology updates? **No.**
 - a. If YES, what will be purchased and when?
 - b. If NO, do fees need to be increased to help support these?

The fees cover material and supplies, and any other add-ons could affect the student's ability to pay for training.

 - What is needed and what will it cost? **At this time, we are looking at updating the programs engine run stands; at a cost of approx. \$10,000. We need to update the structural composite tooling; the cost is approx. \$6,000. The program also needs additional training and equipment to match the need for electrical technician demand. The building also requires some improvements to the ventilation system in certain rooms, for student safety and environmental control; the cost for this is not known.**
 - How much do the fees need to increase? Discuss. **The program would like to keep student cost down. What the program needs is money from other resources to buy equipment and technology upgrades.**
 - Should this discussion be used to request a fee increase? **This can be a discussion point but it must also include the added burden financially.**

SPECIAL POPULATIONS AND NON-TRADITIONAL FIELDS:

Special Populations: Individuals with disabilities; individuals from economically disadvantaged families; individuals preparing for non-traditional fields; single parents, including single pregnant women; out-of-workforce individuals (formerly “displaced homemakers”); English learners; youth who are in, or have aged out of, the foster care system; **homeless individuals; and youth with active-duty military parents.**

Non-Traditional Fields: Non-traditional fields means occupations or fields of work for which individuals from one gender comprise less than 25% of those employed in such fields. (Examples: men in nursing, women in aviation, women in welding, etc.)

4. Using the data provided in the [BBCC and Perkins dashboards](#)
 - a. Where are the biggest gaps in performance indicators for this program?
 - Demographic subgroups: **the data indicates there is a gap with women, especially Hispanic women in the AMT program.**
 - Perkins special populations: **unfortunately, this report does not break out Aviation Technician within its programs.**

- Non-traditional enrolment: BBCC dashboard indicates that about 40% of the students would be considered non-traditional.
 - b. How is the program addressing the performance gaps identified above? BBCC has been reaching out to local high schools to inform them of the possibilities that await, and that the Aviation industry is much more than just technicians. Achieving their airmen's certification and FAA certification will open doors into Inspection, supervisor role, and manufacturing.
5. Please provide a brief description of any example in the five areas below of initiatives, events, or strategies implemented in the past year pertaining to students in *special populations* or *non-traditional fields*.
- a. Decreasing barriers to participation: one of BBCC's guiding principles is to advocate for equity, inclusion, and diversity. BBCC is always looking for ways to bring people together by serving as a bridge, standing as a leader, and supporting students' success.
 - b. Ensuring equitable access to programs: within BBCC's new hangar facility the innovations and technology have been put in place to achieve an equitable environment for all people that enroll in the AMT program.
 - c. Increasing enrollment: BBCC working in conjunction with the local high schools and aviation companies to advertise the program and the high demand for FAA certified technicians.
 - d. Improving completion rates: BBCC being a Hispanic Serving Institution (HSI) the AMT program has been working with students, that have English as their second language, to make sure they clearly understand the FAA exam. questions and Regulations.
 - e. Promoting and maintaining a discrimination-free environment: BBCC will not stand for discrimination. In BBCC's "Guiding Principles" we embrace our role as an HSI, we advocate for equity, inclusion, and diversity, we embrace workplace Norms, innovate proactively, model integrity and educate all.
6. What was the most successful or noteworthy development with respect to support for *special populations* and students in *non-traditional fields* this year? BBCC honors its role as a Hispanic serving institution (HSI). We have changed our hours and days of operation, to allow those with families and jobs more time in the shop and classroom. Technology in the classroom for better visual and hearing for students.

WORK-BASED LEARNING:

7. How is work-based learning integrated into your program? Please describe and identify all types of work-based learning that is required in your programs. BBCC AMT program does not require work-based learning, however, there are aspects of the Aviation field, such as FAR regulations, Manuals, publications, and standards that must be in the program as work-based learning. In addition, many of the local Aviation companies accept students for intern work over the summers, which gives the students a great lesson in industry standards but also job placement opportunities.
8. Select all methods employed that are used in your program to provide your students with experience in and an understanding of all aspects of industry.

Provide short descriptions of each method selected.

X Industry Speakers

- Workplace Tours
- Job Shadows
- Job & Career Fairs
- Simulations
- Required Internship or Clinical Experience
- Optional Internship or Clinical Experience
- Cooperative/Capstone Projects
- Student Clubs
- Business/Industry Mentoring
- Other

CAREER GUIDANCE:

9. How does your program provide career counseling with information on employment trends, wages, and opportunities to assist students plan their education? **This program has three advisors that will help guide the students through this process. The program also has an advisory committee made up of people working within the industry and three advisors; this gives us great insight into current information for the students. The program also invites Aviation companies to visit the college and talk to the students; we have had all the local companies, Alaska Airlines, Boeing, and many others that have contacted us and supplied information for the students. Another source of information for the students would be alumni that currently are working in the industry. The instructors have and will continue to stay in touch with alumni in the industry.**

10. Since the last audit (in the last three years), what was the most successful or noteworthy development with respect to program academic guidance and career counseling this year? **The program has added a General instructor and hired a new Powerplant instructor. Both instructors were currently working in the aviation industry, this allows fresh insight into the industry. The area around the college has seen a great increase in the aviation industry which allows students to see firsthand all the diverse types of careers within the industry they can choose from. Also, these new companies help the program by being part of the advisory committee, they give us insight into industry changes. This allows us to adjust the program with new types of training.**

11. Select all methods employed to provide students with comprehensive and labor market-informed guidance, counseling, and coaching related to career discernment, academic transfer, and job search strategies.

Please provide a brief description of each method selected.

- Online Job Search Engines
- Career Exploration Workshops
- Mock and On-Campus Interviews
- Work Source
- Interactive/Online Pathway Tools
- Hardcopy Career Pathway Tools (Posters, Brochures, Worksheets, etc.)
- Resume Workshops
- Credit-Bearing Career Readiness Courses
- Credit-Bearing College Readiness Courses
- College/Transfer Fairs
- BA-S Program Presentations/Open Houses

Other

SCHEDULING:

12. Discuss how the scheduling for your courses is developed and how it is evaluated to determine access/availability for students. The AMT program is developed by the standards and regulations issued by the FAA CFR 14 Part 147. These same standards and regulations grant the FAA to evaluate the program based on CFR 14 Part 147.
13. Has this program considered providing other options for offering the program content; such as, online, hybrid, nights, competency-based, weekends, etc.? Yes, for years the program has been developing on-line classes and working toward competency-based learning. As of now the FAA regulates what the students are to be trained in and for how long.
 - a. If yes, what is being considered and why?
Yes, there is a new rule change happening with CFR 14 Part 147 and with that we will be able to move to a competency-based and add more on-line options.
 - b. If no, is this something that should be considered and why/why not?
14. Using the schedule and MCOs provided, please
 - a. review schedule and MCOs for accuracy or required changes.
 - b. identify classes that should be retired.
 - c. identify changes to the quarters, time, and modality offered.

ASSESSMENT REVIEW:

15. Please review your assessment work over the last three years. Has the assessment work that your program reported resulted in improved student learning or student success or improved attainment of industry-recognized credentials? Please share an example.

The major assessment tool we use is the "National Testing Norms" from the FAA, this is the norm for which the FAA evaluates the program. We have taken the information from those National testing norms and used them to bolster our instruction in any areas that may fall below the national norm.

16. As you reviewed this work, are there elements of this assessment work that you need to revisit or follow up in order to learn more in these areas or to "close the loop"?

At this time, we have not looked at those assessments tools this year and need to do so to close the loop.

17. What future steps can you make in your assessment work so that it has greater meaning and value to you and your students?

In the future, with the new FAA CFR Part 147 curriculum development it is critical we pay close attention to the FAA National Testing Norms to ensure BBCC students are testing at or above the norms.

18. If your assessment work resulted in curriculum changes, equipment/technology purchases, professional development/training, please make sure those are reflected in the appropriate areas within the audit.