Institutional Program Review—2019-2020
Program Efficacy Phase: Instruction
DUE: Friday, March 13, 2020 by NOON

Purpose of Institutional Program Review: Welcome to the Program Efficacy phase of the San Bernardino Valley College Program Review process. Program Review is a systematic process for evaluating programs and services annually. The major goal of the Program Review Committee is to evaluate the effectiveness of programs so that the college community can make informed decisions about budget and other campus priorities. Program Review is conducted by authorization of the SBVC Academic Senate. **This year, your program is required to complete a full-efficacy review.** The purpose of Program Review is to:

- Provide a full examination of how effectively programs and services are meeting departmental, divisional, and institutional goals
- Aid in short-range planning and decision-making
- Improve performance, services, and programs
- Contribute to long-range planning
- Contribute information and recommendations to other college processes, as appropriate
- Serve as the campus' conduit for decision-making by forwarding information to appropriate committees

Access to Efficacy information and resources can be found on the Program Review Efficacy Resources page.

The committee evaluates the self-awareness that each program demonstrates in all aspects, both positive and negative, of its performance. This includes the program's ability to address areas that need improvement and areas where the program will capitalize on its strengths. Ultimately, the efficacy document should identify and expand upon a program's position within the framework of the college structure and identify plans that are in place to improve the services that it offers to students and the college community.

As you complete your efficacy review, keep in mind that the Program Review Committee is comprised of faculty and staff from departments throughout the campus, and student representatives. The composition of the committee members ensures that a global view is maintained when evaluating the reviews and that the program is not only addressing departmental and divisional goals but that the program is also considering institutional goals as well. Committee members may not already be familiar with your program, so be sure that you provide adequate support and analysis for each of the questions.

Committee members are available to meet with you to carefully review and discuss your Program Efficacy document. The rubric that the team will use to evaluate your program is embedded in the form. As you are writing your program evaluation, feel free to contact the efficacy team assigned to review your document or your division representatives for feedback and input.

Draft forms should be written early so that your review team can work with you at the **small-group workshops:**

Friday, February 21 from 9:30 to 11:00 a.m. in B-204
Friday, March 6 from 9:30 to 11:00 a.m. in B-204

Programs are now required to provide and analyze disaggregated SLO/SAO data. The committee strongly suggests you plan to attend one of the workshops below to learn how to extract SLO/SAO data and assemble and analyze relevant data sets for your program.

Disaggregation Workshop: Monday, January 27th 2:00 - 3:30 pm LA-208
Disaggregation Workshop: Tuesday, February 11th 12:00 - 1:30 pm LA-208

Final documents are due to the Committee chairs – **please send to all three** (Carol Jones at carjones@sbccd.cc.ca.us and Joel Lamore at jlamore@sbccd.cc.ca.us and Wallace Johnson at wjohnson@sbccd.cc.ca.us) by **NOON on Friday, March 13, 2020**. It is the writer's responsibility to be sure the committee receives the forms on time.

SUBMISSION FORMAT: **1) Use this current efficacy form and attach as a PDF**
2) Do NOT change the file name

The efficacy process now incorporates the EMP sheet and SLO/SAO documentation, which you will need to insert. We have inserted the dialogue from the committee where your last efficacy document did not meet the rubric and the SBVC demographic data. **If you have questions regarding the SBVC demographic data, contact Christie Gabriel, Research Analyst, at cgabriel@sbccd.cc.ca.us by February 28. If you have additional data requests, those requests must be submitted to Christie Gabriel by February 10.**

Program Efficacy

2019 – 2020

Program Being Evaluated

Aeronautics

Name of Division

Applied Technology, Transportation & Culinary Arts

Name of Person Preparing this Report	**Extension**
Tarif Halabi	8501

Names of Department Members Consulted

David Casillas , Larry Rice, Christopher Byers

Names of Reviewers

Paula Ferri-Milligan, Daniel Algattas and Keynasia Buffong

Work Flow	**Date Submitted**
Initial meeting with department	02/05/2020
Meeting with Program Review Team	03/06/2020
Report submitted to Program Review co-chair(s) & Dean	**by NOON on March 13**

Staffing

List the number of full and part-time employees in your area.

Classification	**Number Full-Time**	**Number Part-time, Contract**	**Number adjunct, short-term, hourly**
Managers	0	0	0
Faculty	1	0	13
Classified Staff	1	0	0
Total	2	0	13

PROGRAM: PLEASE INSERT YOUR RECENT EMP FROM FALL 2019

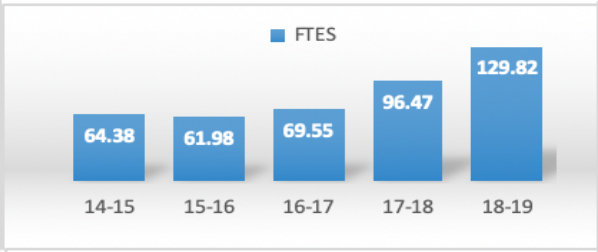
San Bernardino Valley College

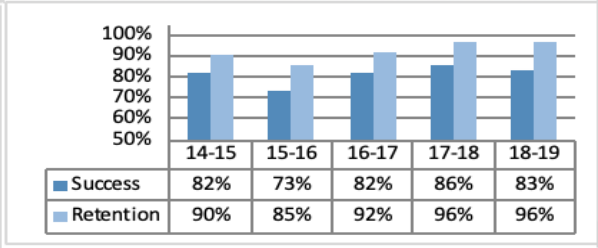
AERONAUTICS — 2018-2019

Description:

The Airframe and Powerplant Technician program prepares students for employment in the aviation industry as a certified Airframe and Powerplant Mechanics. The curriculum encompasses 1900 hours of instruction, 750 hours in Airframe, 750 hours power plant, and 400 hours in the airframe and power plant general curriculum. The program is certified by the FAA under Federal Aviation Regulation Part 147.

Two new programs were introduced - flight operations and Aviation Management programs to prepare students to become pilots as well as prepare them for flight operations and aviation management careers.





	14-15	15-16	16-17	17-18	18-19
Duplicated Enrollment	242	237	273	415	656
FTEF	5.98	5.84	5.98	7.89	12.67
WSCH per FTEF	323	319	349	367	307
Sections	14	13	14	21	38
% of online enrollment	0%	0%	0%	0%	0%
Degrees awarded*	3	1	1	3	6
Certificates Awarded*	4	29	21	43	50

Assessment:

Assessment: (Provide an analysis based on the data provided. As you do so, address each of the tables/charts. 225 Words Max)

1. FTES increased from last reporting period of 2017-2018 to 129.82 from 96.47. This incredible increase is do in part to the investment made in the program, from the purchase of newer industry standard equipment and mockups which adds to the student learning experience. It is also due to our successful outreach activities in addition to our adding of a full night A&P program, creating an opportunity to double our enrollment as well as attracting a different pool of students currently working and wanting to change careers to the aviation industry.
2. Duplicated enrollment has substantially increased drastically over the last two reporting periods. The latest increase is a 63% increase. The increase in duplicated enrollment is attributed to the same reasons indicated above in item 1 in addition to the innovation of instructor lead curriculum.
3. FTEF has dramatically increased (see reasons stated above in item one) putting the strain on our single Full-time Faculty of the program. We are in desperate need of more Full time Faculty as indicated by the FTEF of 12.67.
4. WSCH has understandably dropped, due to the class size limit and the lab / lecture ratio which is 60%-70% of lab instruction in addition to the increased offerings of more sections for both the night A&P program as well as the aviation management and flight operations programs.
5. Student Success has dropped by 3%, due in part to the increase of student to instructor ratio.
6. Retention has stabilized at 96%. The Certificates awarded rate has dramatically increased

Progress from Last Year's Action Plan:

1. As of January of 2019 the department has obtained 2 additional Redbird Simulators for the flight operations courses. Bringing our total to 4 Simulators that are FAA approved for students to receive flight hours.
2. Hired 5 new adjunct instructors with an additional 2 going through the hiring process in order to maintain the evening programs.
3. Added 17 new sections in the evening. The program has now duplicated the day AMT program onto evenings, Airframe , Power-plant and General maintenance programs; to meet the needs of students and aviation industry in the area as suggested by previous Advisory meetings.
4. The Aeronautics Department has secured a donation of a Beechcraft Duke dual engine Aircraft with modern flight deck to replace our Beech 50 Aircraft which is over 50 years old. Donation in the process of obtaining moving permits.

SAOs/SLOs/PLOs: (Summarize how the assessment of SAOs, PLOs and/or any SLOs that shows significant effect has influenced your goals. 200 Words Max)
The success of Aeronautics students revolves around Federal Aviation Administration (FAA) Part 147 certifications and their ability to Interpret airframe and Powerplant manuals (#3) and successfully write descriptive discrepancy reports, and perform required inspections on aircraft among other PLOs. Our PLOs and SLOs reflect the requirements of the FAA part 147 CFR. Nevertheless, they need to be updated to better reflect industry needs while still being in line with FAA requirements. The FAA regulations allows a part 147 school to teach beyond their requirements. Through advisory meetings we have learned that we require updates our PLOs SLOs and SAOs, to a higher industry standard while keeping within the requirements of the FAA. Over 90% of the PLOs have met the PLOs based on the curriculum we offer.
Furthermore, the feedback received from industry advisories has demonstrated a need to re-assess these PLOs.
To accomplish this, we need to expand some of the course offerings to more comprehensively cover and prepare students for industry required competency levels. This will in turn require additional faculty, lab support, equipment, Supplies, etc.

Departmental/Program Goals:

1. Continue outreach and program promotional activity to improve student enrollment.
2. Increase student success and retention rates by providing high-quality education, innovation, instruction and services to a diverse community of learners.
3. Continue to update instructional technology and teaching aids and equipment to meet industry needs.
4. Focus on close association with industry representatives in a continuing effort to meet the needs of a changing workforce to foster economic growth.
5. Explore industry partnerships to provide our students with internship and or employment opportunities.
6. Hire Full-time Faculty to support the duplicated evening program and the huge enrollment increase.

Challenges & Opportunities:

Challenges & Opportunities: [Challenges & Opportunities should be reflected in the Action Plan.] (200 Words Max)

1. Difficulty operating a program with 38 sections with one full time instructor and at times up to 14 adjuncts remains the biggest challenge for the Aeronautics program
2. New equipment for training and updating exceeds allocated budgets. Grant monies must supplement short falls and are generally difficult to obtain for the program. Nevertheless , Application for 4th round Strong Work Force Grant will be submitted and could allow for more class offerings and new equipment.
3. Hiring part-time faculty remains to be a challenge due to high employability in the industry and the slow process of the district in processing potential instructors.
4. Due to space constraints 2 lab sections are taught in one lab at the same time.
5. Outreach programs and program promotion must be done by part time faculty at their own expense.

Action Plan:

Action Steps2&	Department Goal	Necessary Resources to Complete	Target Completion Date
• Hire additional Full-time faculty to reduce current overload and to better serve the Aeronautics airframe and Powerplant evening or day program.	5	Funding. Also Needs assessment committee approval and ranking process.	May 2020
• Purchase new equipment and supplies for the additional evening AMT and flight operations courses.	2&3	Funding	May 2020

Part I: Questions Related to Strategic Initiative: Increase Access

Goal: SBVC will improve the application, registration, and enrollment procedures for all students.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Demographics	The program **does not provide** an appropriate analysis regarding identified differences in the program's population compared to that of the general population.	The program **provides an analysis** of the demographic data and provides an interpretation in response to any identified variance. The program **discusses the plans or activities** that are in place to recruit and retain underserved populations as appropriate.	In addition to the meets criteria, the program's analysis and plan **demonstrates a need** for increased resources.
Pattern of Service	The program's pattern of service is **not related to the needs of students**.	The **program provides** evidence that the pattern of service or instruction meets student needs. The program **discusses the plans or activities** that are in place to meet a broad range of needs.	In addition to the meets criteria, the program **demonstrates that the pattern of service needs to be extended**.

Use the demographic data provided to describe how well you are providing access to your program by answering the questions below.

Demographics – 2016-17 to 2018-19 Academic Years		
Demographic Measure	**Program: Aeronautics**	**Campus-wide**
Asian	6.5%	3.2%
African-American	6.1%	12.3%
Filipino	1.7%	1.3%
Hispanic	44.3%	63.7%
Multi-Ethnicity	8.3%	6.9%
Native American	0.4%	0.2%
Pacific Islander	0.9%	0.2%
White	30.0%	11.1%
Unknown	1.7%	0.9%
Female	10.9%	57.7%

Male	88.7%	42.0%
Disability	3.9%	4.4%
Age 19 or Less	13.9%	23.7%
Age 20 to 24	27.8%	32.9%
Age 25 to 29	22.2%	18.2%
Age 30 to 34	13.5%	9.7%
Age 35 to 39	8.3%	5.7%
Age 40 to 49	4.8%	6.0%
Age 50+	9.6%	3.9%

Demographics:

Provide an **analysis** of how internal demographic data compare to the campus population. Alternatively, provide demographics relative to the program that are collected. If internal data is not collected, describe plans to implement collection of data.
+
If campus demographics are not applicable to your program, discuss why.

Examination of the program population numbers reveal that they continue to somewhat parallel, by ratio, the campus-wide numbers under most categories or measure. However, some discrepancies appear in that our white population exceeds the campus average while Black population lags slightly below campus average. We plan to increase our black student population by aggressively doing focused outreach to our local high school and private black organizations and clubs. However, it is very important to note that our overall enrollment has significantly increased as compared with previous four years which denotes that we do have more actual students of each demographic category from previous years but those increases are lost when we average in the different races. In addition, the female and male ratio continues to be overwhelmingly male dominated. Nevertheless, there has been a significant increase of actual female enrollment as well compared with previous years, but it has been offset by the increase in overall enrollment in the night program. As an example, in the past semesters we have had, on average up to 3 females enrolled in the program but in contrast, currently we have 17 females enrolled in the program. However, female enrollments continue to be a challenge. But the improvement in actual female enrolments illustrates the departments continuing efforts to recruit females to the program with presentations at local high schools, booths and recruitment activities, campus open house events, that are held throughout the year. We are actively using the organization, Women in Aviation, for advise to better promote our program to the female population. We present the opportunities of degrees and certificates that are available to help them achieve a higher level of awareness of career paths for improving their education and increased job opportunities. We have also a close association with the local organization of the Women in Aviation to help promote our program to the female members of our community. All the preceding efforts are undertaken by our full time and adjunct faculty; to recruit potential students of both genders and the diverse ethnic backgrounds from the community that our program serves.

If we analyze each race category, we realize that Asian enrollment is 3.3% higher than campus average and three times higher than the previous four years. With respect to the African American enrollment, it has decreased below the campus average by approximately 6 percent. However, actual Black enrollment number has actually stabilized due to the doubling of our enrolment and FTES. As for the Hispanic population, it continues to constitute the bulk of our student body both campus-wide and program-wise, but program-wide tends to be lower than campus average by about 19%.This has continually and consistently mirrored previous years data trends, one reason may be that, traditionally, the Hispanic population has not considered the aviation field as a stable and an in-demand field, but continued recruitment efforts within our community is making them more aware of the opportunities afforded to them by going through our program. In addition, for the Native American and pacific

Islanders categories, both continued to slightly exceed campus average. It seems that the Native American numbers closely match the campus-wide average, but the Pacific Islander far exceeded it even though it's a small number. Furthermore, the white male program population seems to be significantly higher than campus-average and has always been elevated and historically mirrored industry statistics. If we examine Current population Survey for 2018 data from the Bureau of Labor Statistics (www.bls.gov/cps/cpsaat11.pdf) shows the following percentage of employment in the field White at 82.4%, Women at 4.8%, African American 10.5%, Asian 4.8%, and Hispanics at 12.4%, we find that our program enrollment, factoring in the inland empire demographics being heavily Hispanic, are in line with these statistics and thus correctly reflect the community that we serve and is in line with our Colleges mission of providing quality education and services that support a diverse community of learners. Lastly, it is also to note that students with disabilities percentages are slightly lower than the campus average since the nature of the program does not lend itself well to students with certain physical disabilities. But we, can also see that we have had an improvement in that number compared with the previous four years. Some Federal Aviation Administration rules and regulations do affect the Disabled person's abilities to successfully complete the certificated program.

Pattern of Service:

Describe how the pattern of service and/or instruction provided by your department serve the needs of the population you serve. Include, as appropriate, hours of operation/pattern of scheduling, alternate delivery methods, weekend instruction/service.

We continue to offer our traditional daytime program offerings for Airframe, Powerplant, and General Maintenance Certifications. In addition, in order to better serve working adults and non-traditional daytime program students the Aero Program has successfully added and implemented a complete Airframe, Powerplant and General maintenance program that mirrors our traditional daytime curriculum to form an evening program since our last report. Despite of the fact that our programs are regulated by and has to adhere to strict FAA rules and regulations in terms of lecture and lab hours mandated, we have been able to fully duplicate our day program onto the evening. In addition, we have found that approximately 63% of our evening students are coming to us from local and regional aviation employers such as Unical and other Aviation Maintenance and service facilities from San Bernardino International Airport, Chino Airport, march Air Reserve Base and Ontario International Airport to expand their skills. (Percentage obtained by a voluntary poll of our current students). Moreover, our aviation partners informed us of the need for evening classes at our advisory meetings and they are assisting us in attracting students to the evening program.

We currently see an additional need to add Saturday classes, as per our advisory committee members such as the additional Aero 600 (non-credit) courses to better serve our student population who require additional FAA hours due to their transportation needs. Some are unable to take the additional aero 600 courses when offered after 3 pm. Which continues to be the ideal time to offer that course to provide the required hours to satisfy the FAA mandated lab hours.

We currently offer the Aviation Maintenance programs- Airframe, Powerplant, and General Monday through Friday from 7:30 am to 3:00pm. The evening programs are offered from 4pm to 10pm Monday through Thursday.

Furthermore, we offer Flight Operations courses on campus Monday through Thursday from 3pm to 7pm. Off campus, we offer flight operations courses at Spring Charter High school, in Riverside Ca. on Tuesdays and Thursdays. Some of the Flight operations courses are currently being duplicated as non-credit 600 courses to better serve students who just need to improve or review their pilot skills since they can be taken more than once if needed.

Part II: Questions Related to Strategic Initiative: Promote Student Success

Goal: SBVC will increase course success, program success, access to employment, and transfer rates by enhancing student learning.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Data/Analysis demonstrating achievement of instructional or service success	Program **does not provide an adequate analysis** of the data provided with respect to relevant program data.	Program **provides an analysis** of the data which indicates progress on departmental goals.	In addition to the meets criteria, the program **uses the achievement data** in concrete planning and **demonstrates** that it is prepared for growth.
Service Area Outcomes and/or Student Learning Outcomes and/or Program Level Outcomes: Continuous Assessment	Program **has not demonstrated** that it is continuously assessing Service Area Outcomes (SAOs) and/or Student Learning Outcomes (SLOs) and/or Program Level Outcomes (PLOs) based on the plans of the program since their last program efficacy. Evidence of data collection, evaluation, and reflection/feedback, and/or connection to area services is **missing or incomplete**.	Program **has demonstrated** that it has fully evaluated within a four-year cycle and is continuously assessing all Service Area Outcomes (SAOs) and/or Student Learning Outcomes (SLOs) and/or Program Level Outcomes (PLOs).	In addition to the meets criteria, the program **demonstrates that it has fully incorporated Service Area Outcomes (SAOs) and/or Student Learning Outcomes (SLOs) and/or Program Level Outcomes (PLOs) into its planning, made appropriate adjustments, and is prepared for growth**.
Service Area Outcomes and/or Student Learning Outcomes: Disaggregated Data Analysis	Program **has not demonstrated** that it has analyzed disaggregated data for Service Area Outcomes (SAOs) and/or Student Learning Outcomes (SLOs).	Program **has demonstrated** that it has analyzed disaggregated data for at least two highly relevant Service Area Outcomes (SAOs) and/or Student Learning Outcomes (SLOs).	In addition to the meets criteria, the program **demonstrates that analysis of 3 or more relevant disaggregated SLO data sets support program growth.**

Student Success:

Provide an analysis of the data and narrative from the program's EMP Summary and discuss what it reveals about your program. (Use data from the Charts that address Success & Retention and Degrees and Certificates Awarded")

Certificates awarded by the program for years 18-19 was 50 an impressive increase of 19% over and above the previous year and more than two and a half times the years prior. The Degrees awarded have also doubled from 3 to 6 as compared with previous year, a hundred percent increase. The increase in the amount of certificates awarded is in large part due to the proactive nature of the instructors in informing students on the value of receiving a certificate from the program in addition to their FAA Certifications. Duplicated enrollment has increased from 415 to 656. An astounding increase, due in part to the newer industry standard equipment obtained and utilized in the lab. Students can see the

relevance of what they are studying to the industry they are going into as a direct result of the newly acquired lab equipment and trainers being utilized in the training of our students to expose them to current industry standards.

The FTEF number has improved dramatically from the previous year from f 7.89 to 12.67, a truly astounding number. And as equally impressive, FTES has leaped from 96 to130. This phenomenal improvement is a direct result of our program expansion into the evenings and a testament to the potency and effectiveness of our faculty. However, the WSCH per current FETF decreased from 367 to 307. The reason for this decrease remains due to the lab intensive curriculum that is mandated by the FAA and the work station and equipment available to deliver a quality curriculum mandates that the class size be reduced and thus pushing down the WSCH number further. However, we are predicting that this ratio will slightly improve after the new enrollment statistics are counted since they are continuously growing.

It is also important to note that even though our enrollment have drastically increased, our retention rate has remained unchanged and impressively high at 96%. The success rate has dipped below previous level by 3 percent and registered 83% which can be considered stable compared with the large enrollment increase in FTES.

Supplemental Data:

Provide any additional information, such as job market indicators, standards in the field or licensure rates that would help the committee to better understand how your program contributes to the success of your students.

Specific Job Market Data related to A&P Degree or Certificates	Major and Certificate related Jobs available: Airframe Mechanic, Powerplant Mechanic, Airframe and Power Plant Mechanic, Sheet Metal worker, Structural Assembler, Inspector in many types of Fabrication industries, Aircraft Dispatchers, Aviation management positions, Aviation Support personnel. There are also jobs available in other industries besides aviation and examples of companies that have hired our graduates including aviation and non-aviation related industries are: Sky West Palm Springs Southern California Aviation General Atomics Cessna Citation Oil Refinery Maintenance Mechanic Amusement Parks Scott Oxygen Systems Hydraulics Specialist Recreational Vehicle Technician Virgin America Pulsar Aviation United Parcel Service Federal Express Unical Aviation Services

Program Standards	Program is FAA Approved, audited, and inspected to meet the requirement of Federal Aviation Regulations Part 147 of the FAA code and adheres to the depth of instruction, and time requirement for each instructional unit as delegated by the FAA. In addition, program goals exceed these standards which results in our graduates in many cases becoming the supervisors or lead persons in the industry.
Labor and other statistics (national, western states, regional) www.labormarketinfo.edd.ca.gov	Employment projections for the decade beginning 2016 -2026 shows the following projected increases per category statewide: Aircraft Mechanics and Service Techs: 1.2% annual increase current employment 13,200. Aviation and Airport Services 2.8% annual increase current employment 23,200. Sheet metal workers increase 1.2% annual increase current employment13,500. *The overall outlook for aircraft Mechanics should be favorable over the next 10 years. The small number of young workers in the labor force, coupled with a large number of retirements, point to good employment conditions for students just beginning training*. Large MRO's have projected retirement and industry labor shortfalls and have initiated Job shadowing programs to expose the industry to a prospective workforce. (FedEx Corporation and Boeing Corporation)
FAA Certification award rate for SBVC students	Success rate for SBVC students receiving FAA Certifications after finishing program has maintained an impressive 96% within the last four years.

(INSERT SLO and/or SAO and PLO DATA as appropriate FROM CURRENT REPORT. INSERT COURSE MAP IF AVAILABLE. Refer to prior reports as needed for the analysis.) (Contact Bethany Tasaka, Student Learning Outcomes, Faculty Lead, at btasaka@sbccd.cc.ca.us if you need assistance.) **NOTE: Do NOT include the summaries of the outcomes in this document.**

Student Area Outcomes: Evidence of Continuous Assessment

Course SLOs/SAOs. Demonstrate that your program is continuously assessing Course Student Learning Outcomes (SLOs) and/or Service Area Outcomes (SAOs). Include evidence of data collection, evaluation, and reflection/feedback, and describe how the SLOs/SAOs are being used to improve student learning. Refer to EMP.

Examples of evidence could include the following:

- Documentation of meeting/workshop dates to address findings
- Updated curriculum based on findings
- Alternative teaching methods developed and implemented based on findings
- Development of new materials based on findings

Generate reports from the Cloud as necessary. Include analysis of SLO/SAO Cloud reports and data from summary reports. This section is required for all programs.

Term	Course	SLO1	SLO2	SLO3	SLO4
Fall 2016	Aero 100	89%	89%		
	Aero 100L	90%	90%		
	Aero102	92%	92%		
	Aero102L	92%	92%		
	Aero104	92%	92%		
	Aero104L	92%	92%		
	Aero900	100%	100%		
Spring2017					
	Aero101	78%	78%	78%	
	Aero101L	78%	78%		
	Aero103	100%	100%		
	Aero103L	100%	100%		
	Aero105	100%	100%		
	Aero105L	100%	100%		
Fall 2017					
	Aero100	92%	92%	92%	
	Aero100L	100%	92%	92%	
	Aer0102	83%	83%		
	Aero102L	94%	94%		
	Aero104	92%	92%		

	Aero104L	96%	96%		
	Aero900	100%	100%	100%	100%
Spring2018					
	Aero021	80%	100%	90%	100%
	Aero040	100%	100%	100%	100%
	Aero101	83%	83%	83%	83%
	Aero101L	79%	79%	79%	79%
	Aero103	83%	83%		
	Aero103L	89%	89%		
	Aero105	95%	95%		
	Aero105L	95%	95%		
	Aero900	100%	100%	100%	100%
Fall2018					
	Aero021	100%	100%	100%	100%
	Aero022	100%	100%	100%	100%
	Aero050	81%	81%	81%	81%
	Aero050L	83%	83%	83%	83%
	Aero052	81%	81%		
	Aero052L	100%	100%		
	Aero054	100%	100%		
	Aero054L	100%	100%		
	Aero055	100%	100%		
	Aero055L	100%	100%		
Spring2019					
	Aero022	100%	100%	100%	100%
	Aero026	71%	71%		

	Aero034	100%	100%	100%	
	Aero040	100%	100%	100%	100%
	Aero046	86%	86%	86%	
	Aero051	83%	83%	83%	83%
	Aero051L	92%	92%	92%	92%
	Aero053	94%	94%		
	Aero053L	93%	93%		
	Aero054	100%	100%		
	Aero054L	100%	100%		
	Aero055L	69%	69%		

SCHOOL NORMS VS NATIONAL PASSING NORMS

Please email all questions regarding this report or any other NORMs related information to: AFS630comments@faa.gov

SCHOOL NORMS VS NATIONAL PASSING NORMS

1ST TEST ATTEMPT WITHIN 60 DAYS OF GRADUATION

AMA - AMG - AMP

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8080-08

4 QTR 2019

FSDO ID	FSDO NAME	SCHOOL CERTIFICATE #	SCHOOL NAME	TEST CODE	CURRENT QUARTER Oct 1, 2019 to Dec 31, 2019 # of Applicants	# of Applicants Passed	% of Applicants Passed	Average Grade	TWO YEAR ACCUMULATIVE Jan 1, 2018 to Dec 31, 2019 School Applicants	School Norm	National Applicants	National Norm	§147.38a
WP21	RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	AMA	9	7	78%	79	47	96	7175	88	
WP21	RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	AMG	10	8	80%	73	48	83	8388	81	
WP21	RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	AMP	8	6	75%	76	27	89	7413	85	
WP21	RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	AMA	9	9	100%	83	57	98	7175	88	
WP21	RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	AMG	16	13	81%	78	60	82	8388	81	
WP21	RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	AMP	19	18	95%	83	54	93	7413	85	
WP21	RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	AMA	3	3	100%	81	11	100	7175	88	
WP21	RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	AMG	4	4	100%	80	13	85	8388	81	
WP21	RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	AMP	2	2	100%	89	19	95	7413	85	
WP23	LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	AMA					18	100	7175	88	
WP23	LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	AMG					20	90	8388	81	
WP23	LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	AMP					25	84	7413	85	
WP23	LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	AMA	1	1	100%	88	38	95	7175	88	
WP23	LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	AMG	1	1	100%	75	48	92	8388	81	
WP23	LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	AMP					31	87	7413	85	
WP23	LOS ANGELES	NR0T084K	SPARTAN COLLEGE OF AERONAUTICS & TECHNOLOGY	AMA	8	7	88%	84	86	88	7175	88	
WP23	LOS ANGELES	NR0T084K	SPARTAN COLLEGE OF AERONAUTICS & TECHNOLOGY	AMG	14	13	93%	79	115	88	8388	81	
WP23	LOS ANGELES	NR0T084K	SPARTAN COLLEGE OF AERONAUTICS & TECHNOLOGY	AMP	5	5	100%	82	95	83	7413	85	
WP25	SACRAMENTO	BI9T035R	SACRAMENTO CITY COLLEGE	AMA	6	6	100%	89	35	100	7175	88	
WP25	SACRAMENTO	BI9T035R	SACRAMENTO CITY COLLEGE	AMG	5	5	100%	86	36	97	8388	81	
WP25	SACRAMENTO	BI9T035R	SACRAMENTO CITY COLLEGE	AMP	2	2	100%	86	31	100	7413	85	
WP25	SACRAMENTO	DB9T080R	SOLANO COMM COLLEGE SCHOOL OF AERO	AMA	3	2	67%	68	14	79	7175	88	
WP25	SACRAMENTO	DB9T080R	SOLANO COMM COLLEGE SCHOOL OF AERO	AMG	1	1	100%	78	10	100	8388	81	
WP25	SACRAMENTO	DB9T080R	SOLANO COMM COLLEGE SCHOOL OF AERO	AMP					12	92	7413	85	

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FSDO ID / FSDO NAME	SCHOOL CERTIFICATE #	SCHOOL NAME	Reciprocating Engines	Turbine Engines	Engine Inspection	Engine Instrument Systems	Engine Fire Protection Systems	Engine Electrical Systems	Lubrication Systems	Ignition and Starting Systems	Fuel Metering Systems	Engine Fuel Systems	Induction and Engine Airflow Systems	Engine Cooling Systems	Engine Exhaust and Reverser Systems	Propellers	Auxiliary Power Units
		NATIONAL	83.2%	80.4%	77.4%	82.5%	82.0%	78.8%	77.7%	76.6%	78.9%	80.9%	78.8%	81.2%	76.0%	81.0%	74.3%
WP07 SCOTTSDALE	7WET596K	WESTERN MARICOPA EDUCATION CENTER	90.0%	79.8%	81.8%	77.5%	91.7%	76.8%	76.4%	83.3%	93.1%	78.1%	84.4%	79.2%	64.7%	88.3%	62.5%
WP07 SCOTTSDALE	GBIT003K	CHANDLER-GILBERT COMMUNITY COLLEGE	85.6%	80.4%	82.9%	80.5%	86.3%	78.1%	74.1%	80.1%	83.3%	82.7%	82.7%	83.8%	75.0%	79.1%	82.6%
WP07 SCOTTSDALE	IZPT564X	PIMA COUNTY COMMUNITY COLLEGE	86.3%	82.9%	76.1%	84.2%	91.7%	78.4%	77.8%	81.2%	81.9%	80.2%	89.6%	84.7%	78.4%	83.2%	76.0%
WP09 SAN DIEGO	CM9T065R	SAN DIEGO COMMUNITY COLLEGE DISTRIC	90.9%	82.4%	81.5%	90.0%	86.7%	88.4%	85.6%	76.6%	82.0%	87.5%	92.5%	80.0%	76.2%	87.3%	80.0%
WP13 HONOLULU	DI9T087R	HONOLULU COMMUNITY COLLEGE - DEPT OF AERONAUTICS	86.9%	85.3%	87.5%	93.8%	91.7%	91.1%	85.4%	79.1%	86.8%	89.1%	85.9%	85.4%	89.1%	89.6%	87.5%
WP15 SAN JOSE	DJ9T088R	GAVILAN COLLEGE	80.0%	70.4%	85.7%	80.0%	90.5%	80.4%	73.0%	67.5%	76.2%	75.0%	71.4%	81.0%	71.4%	81.9%	57.1%
WP17 FRESNO	CU3T436L	REEDLEY COLLEGE	73.0%	74.4%	83.3%	80.0%	86.7%	74.7%	77.8%	75.2%	77.8%	82.5%	70.0%	83.3%	70.0%	81.9%	90.0%
WP17 FRESNO	YSJT030K	SAN JOAQUIN VALLEY COLLEGE INC	85.9%	79.8%	72.4%	83.5%	87.4%	81.4%	75.9%	74.9%	76.5%	79.3%	76.7%	86.2%	69.8%	78.0%	67.7%
WP19 LAS VEGAS	9VMT610K	AVIATION INSTITUTE OF MAINTENANCE	80.6%	75.0%	76.8%	76.2%	77.1%	73.9%	73.5%	69.5%	76.0%	76.0%	75.6%	76.5%	68.2%	76.3%	65.3%
WP21 RIVERSIDE	2S1T589K	VICTOR VALLEY COLLEGE SCLA SCHOOL OF AVIATION TECH	71.7%	77.8%	66.7%	83.3%	100.0%	68.2%	83.3%	65.2%	75.9%	83.3%	91.7%	72.2%	87.5%	88.6%	100.0%
WP21 RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	82.4%	74.3%	74.0%	83.5%	70.6%	76.9%	73.2%	82.5%	81.5%	82.4%	79.4%	74.5%	76.8%	82.2%	73.7%
WP21 RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	86.1%	80.2%	74.4%	86.5%	83.9%	80.2%	81.0%	79.4%	84.7%	79.0%	83.1%	83.9%	76.4%	80.8%	88.9%
WP21 RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	84.4%	84.9%	81.5%	86.7%	81.5%	84.1%	76.5%	84.2%	77.8%	83.3%	77.8%	88.9%	75.0%	83.7%	77.8%
WP23 LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	83.0%	72.3%	72.4%	74.0%	80.0%	85.7%	73.3%	67.6%	66.3%	75.0%	72.5%	66.7%	78.1%	78.0%	81.8%
WP23 LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	87.3%	85.5%	81.8%	84.0%	93.3%	80.0%	79.3%	75.9%	78.4%	81.7%	86.7%	88.9%	83.6%	82.2%	87.5%
WP23 LOS ANGELES	NR0T084K	SPARTAN COLLEGE OF AERONAUTICS & TECHNOLOGY	85.4%	78.9%	72.9%	81.5%	91.0%	80.4%	79.1%	73.0%	77.9%	77.4%	76.3%	78.2%	69.8%	79.8%	75.9%
WP25 SACRAMENTO	BI9T035R	SACRAMENTO CITY COLLEGE	90.0%	85.8%	79.2%	80.0%	89.6%	83.9%	87.5%	90.5%	82.4%	92.2%	89.1%	75.0%	89.1%	86.7%	83.3%
WP25 SACRAMENTO	DB9T080R	SOLANO COMM COLLEGE SCHOOL OF AERO	86.0%	88.1%	80.0%	88.0%	93.3%	85.7%	91.1%	83.9%	75.6%	75.0%	90.0%	80.0%	70.0%	86.7%	60.0%
WP27 OAKLAND	2AQT602K	AVIATION INSTITUTE OF MAINTENANCE OAKLAND CAMPUS	83.7%	81.7%	83.5%	79.0%	79.0%	77.0%	80.3%	79.3%	79.3%	83.8%	79.8%	80.7%	77.9%	83.5%	69.2%
WP27 OAKLAND	CO9T067R	COLLEGE OF ALAMEDA	87.3%	81.1%	80.0%	83.6%	87.9%	77.6%	85.4%	77.3%	79.6%	70.5%	83.0%	75.8%	77.5%	79.6%	91.7%
WP27 OAKLAND	DC9T081R	CITY COLLEGE OF SAN FRANCISCO	92.9%	80.5%	85.7%	91.4%	81.0%	83.7%	85.7%	86.1%	95.2%	92.9%	78.6%	81.0%	78.6%	88.6%	85.7%

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FSDO ID	FSDO NAME	SCHOOL CERTIFICATE #	SCHOOL NAME	Basic Electricity	Aircraft Drawings	Weight and Balance	Fluid Lines and Fittings	Materials and Processes	Ground Operation and Servicing	Cleaning and Corrosion Control	Mathematics	Maintenance Forms and Records	Basic Physics	Maintenance Publications	Mechanic Privileges and Limitations	Human Factors
			NATIONAL	78.0%	75.9%	81.7%	81.1%	76.1%	77.4%	71.2%	79.6%	80.6%	70.3%	71.5%	84.5%	75.2%
SW19	NORTH TEXAS	U5DT571K	AVIATION INSTITUTE OF MAINTENANCE	74.3%	73.2%	78.0%	76.2%	70.0%	75.7%	67.1%	76.5%	78.5%	65.1%	68.0%	82.9%	71.7%
SW31	JACKSON	DU9T099R	HINDS COMMUNITY COLLEGE DISTRICT	84.4%	85.3%	80.8%	85.0%	77.7%	86.3%	70.4%	83.3%	80.8%	64.3%	71.7%	94.4%	71.4%
SW31	JACKSON	EH9T112R	NORTHWEST MISSISSIPPI COMMUNITY COLLEGE	77.8%	85.0%	81.3%	87.9%	80.7%	92.9%	83.3%	81.4%	82.1%	68.8%	68.8%	78.1%	62.5%
WP01	VAN NUYS	CZ9T078R	NORTH VALLEY OCCUPATIONAL CENTER	79.8%	73.0%	80.8%	77.4%	76.9%	70.2%	70.6%	80.9%	86.5%	78.4%	68.9%	87.8%	76.9%
WP01	VAN NUYS	VLTT024K	ANTELOPE VALLEY COMMUNITY COLLEGE	79.6%	76.0%	95.0%	95.2%	73.7%	70.0%	89.5%	80.8%	80.0%	85.0%	57.1%	94.4%	90.0%
WP05	LONG BEACH	DP9T094R	ORANGE COAST COLLEGE	94.1%	77.3%	72.2%	76.7%	88.5%	79.4%	85.7%	68.9%	89.2%	68.6%	76.7%	87.9%	72.2%
WP07	SCOTTSDALE	7WET596K	WESTERN MARICOPA EDUCATION CENTER	71.4%	77.6%	77.1%	86.0%	70.7%	71.1%	73.3%	84.1%	84.1%	74.5%	75.0%	85.4%	62.5%
WP07	SCOTTSDALE	GBIT003K	CHANDLER-GILBERT COMMUNITY COLLEGE	77.3%	79.2%	83.4%	90.0%	76.2%	80.0%	74.4%	82.0%	86.3%	71.0%	77.1%	92.9%	84.2%
WP07	SCOTTSDALE	IZPT564X	PIMA COUNTY COMMUNITY COLLEGE	77.9%	81.1%	91.7%	88.2%	75.9%	86.2%	72.2%	82.3%	92.3%	69.5%	69.0%	88.3%	76.7%
WP09	SAN DIEGO	CM9T065R	SAN DIEGO COMMUNITY COLLEGE DISTRIC	79.0%	75.6%	73.5%	95.4%	75.8%	84.9%	75.0%	80.4%	87.5%	66.7%	77.8%	79.4%	77.8%
WP13	HONOLULU	DI9T087R	HONOLULU COMMUNITY COLLEGE - DEPT OF AERONAUTICS	87.5%	78.1%	90.0%	84.5%	86.3%	80.0%	76.6%	87.9%	84.8%	80.4%	83.7%	96.1%	80.8%
WP15	SAN JOSE	DJ9T088R	GAVILAN COLLEGE	86.1%	83.6%	88.1%	93.5%	81.1%	79.0%	71.4%	80.7%	90.0%	81.8%	80.5%	88.1%	86.4%
WP17	FRESNO	CU3T436L	REEDLEY COLLEGE	85.5%	81.8%	86.1%	83.8%	79.7%	72.7%	68.8%	87.0%	93.8%	83.3%	78.8%	83.3%	77.8%
WP17	FRESNO	YSJT030K	SAN JOAQUIN VALLEY COLLEGE INC	79.0%	77.0%	92.1%	87.4%	77.2%	80.2%	79.8%	86.4%	82.1%	76.1%	74.2%	87.9%	76.1%
WP19	LAS VEGAS	9VMT610K	AVIATION INSTITUTE OF MAINTENANCE	77.9%	75.7%	74.2%	71.6%	69.9%	71.8%	67.3%	73.5%	75.1%	63.5%	65.9%	79.2%	70.0%
WP21	RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	76.9%	81.3%	81.4%	70.1%	79.0%	67.7%	64.0%	77.1%	79.2%	72.4%	67.1%	87.8%	68.4%
WP21	RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	76.7%	79.9%	80.5%	79.2%	76.4%	73.5%	71.6%	64.3%	77.8%	66.4%	70.2%	80.3%	81.7%
WP21	RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	83.5%	81.6%	81.1%	87.8%	81.2%	79.0%	67.5%	69.2%	81.1%	71.8%	69.2%	85.0%	60.0%
WP23	LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	76.4%	75.9%	75.0%	72.0%	75.6%	76.2%	75.0%	72.7%	90.9%	60.9%	65.2%	79.2%	66.7%
WP23	LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	83.3%	71.8%	82.3%	74.0%	78.3%	74.7%	71.3%	77.1%	87.1%	74.7%	79.8%	92.1%	77.1%

SCHOOL NORMS VS NATIONAL PASSING NORMS
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AMA Airframe

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FSDO ID	FSDO NAME	SCHOOL CERTIFICATE #	SCHOOL NAME	Wood Structures	Aircraft Covering	Aircraft Finishes	Sheet Metal and Non-Metallic Structures	Welding	Assembly and Rigging	Airframe Inspection	Aircraft Landing Gear Systems	Hydraulic and Pneumatic Power Systems	Cabin Atmosphere Control Systems	Aircraft Instrument Systems	Communication and Navigation Systems	Aircraft Fuel Systems	Aircraft Electrical Systems	Position and Warning Systems	Ice and Rain Control Systems	Fire Protection Systems
			NATIONAL	82.9%	82.7%	85.3%	80.6%	85.7%	84.7%	76.2%	80.4%	80.0%	77.5%	80.0%	81.0%	81.4%	79.1%	82.5%	82.7%	84.8%
WP01	VAN NUYS	CZ9T078R	NORTH VALLEY OCCUPATIONAL CENTER	75.0%	91.7%	91.7%	81.0%	86.1%	86.9%	75.0%	84.9%	88.2%	79.8%	86.7%	88.3%	84.9%	86.3%	90.3%	83.3%	79.4%
WP05	LONG BEACH	DP9T094R	ORANGE COAST COLLEGE	75.0%	90.0%	80.0%	86.4%	80.0%	90.0%	80.0%	80.0%	90.0%	75.7%	94.0%	82.0%	86.4%	85.9%	88.0%	90.0%	86.7%
WP07	SCOTTSDALE	7WET596K	WESTERN MARICOPA EDUCATION CENTER	66.7%	100.0%	100.0%	72.2%	88.9%	90.5%	33.3%	75.0%	66.7%	90.5%	80.0%	100.0%	69.7%	78.4%	86.7%	88.9%	100.0%
WP07	SCOTTSDALE	GBIT003K	CHANDLER-GILBERT COMMUNITY COLLEGE	81.0%	92.5%	80.0%	81.5%	89.2%	86.1%	92.5%	81.3%	78.8%	81.4%	87.2%	84.5%	81.4%	78.8%	79.3%	76.7%	92.1%
WP07	SCOTTSDALE	IZPT564X	PIMA COUNTY COMMUNITY COLLEGE	92.9%	85.7%	100.0%	83.2%	90.5%	84.7%	85.7%	87.9%	78.8%	86.7%	70.0%	87.1%	84.4%	76.5%	81.7%	83.3%	82.9%
WP09	SAN DIEGO	CM9T065R	SAN DIEGO COMMUNITY COLLEGE DISTRIC	85.7%	57.1%	100.0%	84.5%	90.5%	89.8%	57.1%	86.2%	89.7%	79.6%	69.4%	74.3%	79.2%	83.2%	74.3%	95.2%	90.0%
WP13	HONOLULU	DI9T087R	HONOLULU COMMUNITY COLLEGE - DEPT OF AERONAUTICS	84.6%	92.3%	100.0%	86.6%	97.6%	96.7%	94.4%	87.6%	93.7%	84.4%	92.3%	84.6%	88.1%	89.9%	92.3%	97.4%	100.0%
WP15	SAN JOSE	DJ9T088R	GAVILAN COLLEGE	100.0%	100.0%	100.0%	86.8%	94.4%	90.5%	91.7%	79.6%	83.2%	81.0%	85.3%	80.0%	77.3%	76.9%	73.8%	86.1%	91.2%
WP17	FRESNO	CU3T436L	REEDLEY COLLEGE	83.3%	72.7%	75.0%	86.6%	86.1%	84.2%	75.0%	75.3%	80.2%	77.6%	89.1%	74.6%	82.6%	77.5%	76.4%	75.8%	71.0%
WP17	FRESNO	YSJT030K	SAN JOAQUIN VALLEY COLLEGE INC	88.9%	96.0%	92.3%	88.6%	88.5%	87.4%	66.7%	84.7%	83.3%	79.9%	82.4%	91.2%	79.3%	81.3%	84.1%	85.3%	93.1%
WP19	LAS VEGAS	9VMT610K	AVIATION INSTITUTE OF MAINTENANCE	80.7%	79.1%	81.3%	76.5%	80.8%	79.0%	75.5%	75.3%	75.8%	71.4%	72.0%	73.1%	75.0%	72.8%	73.0%	73.9%	79.4%
WP21	RIVERSIDE	2S1T589K	VICTOR VALLEY COLLEGE SCLA SCHOOL OF AVIATION TECH	66.7%	83.3%	50.0%	87.7%	94.4%	85.7%	66.7%	85.7%	88.3%	88.1%	73.3%	90.0%	97.0%	84.0%	96.8%	94.4%	100.0%
WP21	RIVERSIDE	7BIT627K	BOUNTY ISLAND CORPORATION	74.1%	92.3%	88.5%	85.1%	92.3%	86.8%	80.8%	75.0%	85.7%	79.7%	81.7%	83.1%	78.7%	79.6%	88.0%	78.2%	83.8%
WP21	RIVERSIDE	CK9T063R	CHAFFEY COMMUNITY COLLEGE	90.9%	78.1%	91.7%	79.9%	94.4%	87.2%	59.6%	86.8%	77.9%	79.1%	87.6%	85.0%	82.4%	78.6%	87.8%	81.3%	84.6%
WP21	RIVERSIDE	HO8T197Q	SAN BERNARDINO VALLEY COLLEGE	100.0%	80.0%	100.0%	81.7%	100.0%	94.3%	80.0%	82.5%	90.0%	85.7%	76.0%	84.0%	89.1%	80.0%	92.0%	80.0%	93.3%
WP23	LOS ANGELES	CQ9T069R	MT SAN ANTONIO COLLEGE	100.0%	71.4%	100.0%	88.1%	85.7%	77.6%	85.7%	83.9%	81.4%	77.6%	77.1%	80.0%	83.1%	84.0%	82.9%	81.0%	95.2%
WP23	LOS ANGELES	GH3T527L	WEST LOS ANGELES COLLEGE	83.3%	95.5%	68.2%	83.3%	90.9%	90.3%	77.3%	83.2%	81.7%	81.8%	85.7%	79.1%	79.8%	80.4%	87.3%	84.9%	90.6%
WP23	LOS ANGELES	NR0T084K	SPARTAN COLLEGE OF AERONAUTICS & TECHNOLOGY	90.9%	82.9%	78.1%	84.9%	80.5%	85.7%	75.6%	79.6%	78.5%	79.8%	83.9%	84.9%	85.4%	78.0%	82.9%	86.2%	89.7%
WP25	SACRAMENTO	BI9T035R	SACRAMENTO CITY COLLEGE	94.7%	94.7%	90.0%	83.6%	86.7%	92.4%	79.2%	89.6%	89.2%	86.4%	84.5%	88.4%	89.5%	85.5%	92.6%	89.5%	94.3%
WP25	SACRAMENTO	DB9T080R	SOLANO COMM COLLEGE SCHOOL OF AERO	58.3%	60.0%	70.0%	70.3%	66.7%	72.9%	80.0%	72.5%	76.0%	70.0%	76.5%	84.0%	83.6%	78.2%	74.0%	76.7%	72.4%

The above data (in the First Table indicated above top) was extracted and all available courses submitted with their SLO's individually tallied and reported for all terms listed back 6 semesters. From this data, it is evident that the SLO's are being assessed on regular basis. From this data, we extrapolated the average of all SLO's for the last three years achieving 90.5% success rate. This signifies a high success rate and strongly correlates to the success of our students who obtained their Certifications from the program as well as the FAA.

Also attached above you will see data from the FAA website (five pages including cover page) showing the performance of students from different colleges and their comparison segregated per college. From there, we can see that our student's success rates per subject matter of the FAA exam which we had correlated within our courses, strongly correlate to our SLO's for that course. So, this is a direct comparison with the FAA's disaggregation per subject matter correlating directly to our courses SLO's. As an example, to illustrate the validity and to evaluate how our SLO's success rate compared with the FAA's. We will take the percentage of success rate of our students for the category on page number 4 and we will look at all the topics on top that relate to our courses Aero053 and 054, we see that our student's success rates from 80% to 94.3% as reported by the FAA's website. Then if we compare that with our chart compiled above we see that the SLO's success rate for the Aero053 (previously Aero 103) and Aero054 (previously104) vary from 83% to 100%

which can be considered a close correlation and proves that the SLO's are well assessed and evaluated to closely resemble that of the FAA's. Finally, it is apparent that our success with SLO'S is evident in the test results compiled by the Federal Aviation Administration. The data overwhelmingly shows that the percentage of questions passed by Topic on the FAA test is higher than the national norm when test topic is directly related to SLO'S. Pages 2-3 of attachment). In addition, it is also apparent from the first page of the FAA website excerpts above that shows that 100% of SBVC's students who took the FAA exams have passed their examinations, an impressive performance.

Student Area Outcomes: Disaggregated Data Analysis

Course SLOs/SAOs. Demonstrate that your program is evaluating disaggregated SLO data as appropriate to your program's student population, educational delivery methods, etc. Your program should evaluate as many different disaggregated data sets as useful in understanding success rates, course patterns, patterns of service, etc. SLO Cloud allows departments to do any type of disaggregation that can be sorted by section number.

Examples of evidence could include the following:

- Day/Evening classes
- Online vs on-ground (i.e. face to face/classroom delivery)
- Lower level and upper level courses
- Gateway courses
- Cohort or learning community courses
- Courses relevant to degree or certificate PLOs

Analysis of the data should explain numbers, note any relevant patterns, and detail program changes or actions (if any seem indicated) to address areas for improvement or to capitalize on strengths or opportunities revealed in the data.

Course Aero 050,050L	**Our SLO average rate**	**FAA Related Topic questions** **SBVC student Exam Performance(average)**
1.SLO#4 /Basic Electricity 2.SLO#2/Basic Physics	83%	79%
Course Aero 054, 054L	**Our SLO average rate**	**FAA Related Topic questions SBVC student exam performance(average)**
1.SLO#1/Powerplant- reciprocating engines. 2.SLO#2/Engine inspection	94%	83%

Course Aero 055,55L	Our SLO average rate	FAA Related Topic questions SBVC student exam Performance(range)
1.SLO#1/Lubrication Systems 2.SLO#2/Ignition and starting systems 3.SLO#1/Engine Fuel Systems	93%	82%

Course Aero 052,052L, 053,053L	Our SLO average rate	FAA Related Topic Questions SBVC student exam performance(range)
1.SLO#1,2,,3/Steel Metal and non-metal structure 2.SLO#1,2/Assembly and rigging 3. SLO#1,2,3/Aircraft Landing gear systems 4. SLO#1,2,3/Hydraulic and Pneumatic power systems. 5SLO#2/Cabin atmosphere control system 6. SLO#2/Aircraft instrument systems 7.SLO#2/fuel systems 8. SLO#2/electrical systems 9.SLO#2/position and warning systems 10.SLO#2/ Ice and rain control. 11. Fire protection systems	81% thru 92% (range) 81% average for SLO#2 Aero053 (Cabin Atm.) 83% average for SLO#3 Aero 053 (Electrical syst.)	76% thru 94.4%(range)

For our disaggregation of our SLO data, we will compare our SLO Averages for students success going through particular classes within our program that cover topics that are directly assessed by questions on the actual FAA examinations for General, Airframe, and Powerplant maintenance and to compare them directly to our students average scores, as published by the FAA, on those questions with the same topics covered

within our course SLO's. from this analysis of the disaggregated results in the tables created above, we can deduce that our SLO's success rates closely parallel the results or scores attained by our students on the actual FAA exam related topic questions. Meaning, that the SLO's are quite valid and our evaluation is within acceptable range. If its within ten percent of the FAA's average, then it can be fine-tuned to provide a closer result and to narrow the 10%gap. If the gap is greater than 10% then we can deduce that the SLO must be revisited and the assessment parameters must be changed.

We use 10 % as a benchmark because a drop of 10% or more from The Federal Aviation Administrations national average triggers a letter to us to bring our scores up to the National average. As this scores closely correlate with our SLOs we have an effective tool to analyze our SLOs on a quarterly basis through the FAA website.

Our SLOs reflect some deficiencies, for example, in the General courses. Although the average is excellent, when broken down to individual SLOs we can see a deficiency in basic electricity by it being low. We will be working closely with the electronics department to analyze our teaching methodology of basic electricity with how they teach it. In this fashion we can improve our SLOs scores.

Program Level Outcomes:

If your program offers a degree or certificate, describe how the program level outcomes are being used to improve student learning at the program level (e.g., faculty discussions, SLO revisions, assessments, etc.). **Describe** how this set of data is being evaluated or is planned to be evaluated. Generate reports from the SLO Cloud as necessary. Include analysis of SLO Cloud reports and data from 3-year summary reports. If your program does not offer a degree or certificate, this section is optional (but encouraged).

The following map provides an accurate SLO's association to the various coursework and certificates. Faculty is continuously assessing the effectiveness of the SLO since it has to closely adhere to FAA part 147 standards. Because within these standards lie the basic expected outcomes that are essential and cannot change such as interpreting airframe and powerplant manuals, perform required aircraft inspections, troubleshoot airframe and powerplant systems to name a few. However, the assessment methodology has and is continuously being evaluated and changed to better improve student success. For instance, students go through a rigorous regime of scenarios of common wear and tear issues that an airframe or powerplant may incur as a result of customary operation, and then students are guided towards the answer using critical thinking and knowledge base. Thus the criteria of evaluating and assessing the student's performance can be changed to determine what constitutes a successful completion of the tasks. So, these criteria and evaluations are always being fine-tuned to directly support the SLO 's which ultimately support the PLO's.

Airframe Maintenance Certificate	Familiarization with and application of general/calculations and basic electricity of aviation as required by the FAA	AERO-050	AERO-050L								
Airframe Maintenance Certificate	Familiarization with and application of general/materials and servicing of aviation as required by the FAA	AERO-051	AERO-051L								
Airframe Maintenance Certificate	Interpret airframe and powerplant manuals	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		
Airframe Maintenance Certificate	Preform required inspections on an aircraft	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		
Airframe Maintenance Certificate	Troubleshoot aircraft, airframe and powerplant systems	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		
Airframe Maintenance Certificate	Service aircraft, airframe and powerplant systems	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		
Airframe Maintenance Certificate	Assess the serviceability of parts	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		
Airframe Maintenance Certificate	Write descriptive descrepancy reports	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055	AERO-055L		

Aviation Maintenance Technician Certificate	Familiarization with and application of general/calculations and basic electricity of aviation as required by the FAA	AERO-050	AERO-050L									
Aviation Maintenance Technician Certificate	Familiarization with and application of general/materials and servicing of aviation as required by the FAA	AERO-051	AERO-051L									
Aviation Maintenance Technician Certificate	Interpret airframe and powerplant manuals	AERO-050	AERO-050L	AERO-051	AERO-051L	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055
Aviation Maintenance Technician Certificate	Perform required inspections on an aircraft	AERO-052	AERO-052L	AERO-053	AERO-053L							
Aviation Maintenance Technician Certificate	Troubleshoot aircraft airframe and powerplant systems	AERO-052	AERO-052L	AERO-053	AERO-053L							
Aviation Maintenance Technician Certificate	Service and repair aircraft airframe and powerplant systems	AERO-052	AERO-052L	AERO-053	AERO-053L							
Aviation Maintenance Technician Certificate	Assess the serviceability of parts	AERO-052	AERO-052L	AERO-053	AERO-053L							

Aviation Maintenance Technician Certificate	Write descriptive discrepancy reports	AERO-052	AERO-052L	AERO-053	AERO-053L	AERO-054	AERO-054L	AERO-055				
Avionics Technology Certificate	Be prepared to transfer a core curriculum to an accredited, 4-year college or university with junior class standing in electronics technology or a related major.	ELECTR-111	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-230	ELECTR-235	ELECTR-265	ELECTR-266	ELECTR-270	ELECTR-220C	
Avionics Technology Certificate	Select and operate electronic test equipment during troubleshooting and repair operations, with an emphasis on safety in use and accuracy in results.	ELECTR-110	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-220C	ELECTR-250C	ELECTR-257C				
Avionics Technology Certificate	Analyze, interpret, and trace digital logic diagrams used in signal tracing of complex navigational and airborne communications circuits.	ELECTR-265	ELECTR-266	ELECTR-220C								

Avionics Technology Certificate	Effectively communicate with and advise customers and co-workers, both written and orally, regarding the progress of and decisions made concerning test and repair procedures.	ELECTR-110	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-235	ELECTR-265	ELECTR-266	ELECTR-270	ELECTR-220C	ELECTR-250C	ELECTR-257C
Avionics Technology Certificate	Be eligible to sit for industry/Federal-style examinations on the theory and procedures of avionics technology.	ELECTR-110	ELECTR-111	ELECTR-116	ELECTR-230	ELECTR-235	ELECTR-265	ELECTR-270	ELECTR-220C			
Avionics Technology Degree	Be prepared to transfer a core curriculum to an accredited, 4-year college or university with junior class standing in electronics technology or a related major.	ELECTR-111	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-230	ELECTR-235	ELECTR-265	ELECTR-266	ELECTR-270	ELECTR-220C	
Avionics Technology Degree	Select and operate electronic test equipment during troubleshooting and repair operations, with an emphasis on	ELECTR-110	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-220C	ELECTR-250C	ELECTR-257C				

	safety in use and accuracy in results.											
Avionics Technology Degree	Analyze, interpret, and trace digital logic diagrams used in signal tracing of complex navigational and airborne communications circuits.	ELECTR-265	ELECTR-266	ELECTR-220C								
Avionics Technology Degree	Effectively communicate with and advise customers and co-workers, both written and orally, regarding the progress of and decisions made concerning test and repair procedures.	ELECTR-110	ELECTR-115	ELECTR-116	ELECTR-155	ELECTR-235	ELECTR-265	ELECTR-266	ELECTR-270	ELECTR-220C	ELECTR-250C	ELECTR-257C
Avionics Technology Degree	Be eligible to sit for industry/Federal-style examinations on the theory and procedures of avionics technology.	ELECTR-110	ELECTR-111	ELECTR-116	ELECTR-230	ELECTR-235	ELECTR-265	ELECTR-270	ELECTR-220C			
Powerplant Maintenance Technician Certificate	Familiarization with and application of general/calculations and basic	AERO-050	AERO-050L	AERO-054	AERO-054L	AERO-055	AERO-055L					

	electricity of aviation as required by the FAA											
Powerplant Maintenance Technician Certificate	Familiarization with and application of general/materials and servicing of aviation as required by the FAA	AERO-051	AERO-051L	AERO-054	AERO-054L	AERO-055	AERO-055L					
Powerplant Maintenance Technician Certificate	Read and interpret powerplant manuals, charts and task sheets	AERO-054	AERO-054L	AERO-055	AERO-055L							
Powerplant Maintenance Technician Certificate	Perform required inspections, maintenance and repairs on aircraft powerplants	AERO-054	AERO-054L	AERO-055	AERO-055L							
Powerplant Maintenance Technician Certificate	Troubleshoot aircraft powerplant systems and components	AERO-054	AERO-054L	AERO-055	AERO-055L							
Powerplant Maintenance Technician Certificate	Overhaul aircraft powerplants	AERO-054	AERO-054L	AERO-055	AERO-055L							
Powerplant Maintenance Technician Certificate	Read and interpret powerplant overhaul manuals measure and determine	AERO-054	AERO-054L	AERO-055	AERO-055L							

	serviceability of parts											
Powerplant Maintenance Technician Certificate	Write descriptive and concise discrepancy reports	AERO-054	AERO -054L	AERO -055	AERO -055L							

Part III: Questions Related to Strategic Initiative: Improve Communication, Culture & Climate

Goal: SBVC will promote a collegial campus culture with open line of communication between all stakeholder groups on and off-campus.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Communication	The program **does not identify** data that demonstrates communication with college and community.	The program **identifies** data that demonstrates communication with college and community.	In addition to the meets criteria, the program **demonstrates** the ability to communicate more widely and effectively, **describes** plans for extending communication, and provides data or research that **demonstrates** the need for additional resources.
Culture & Climate	The program **does not identify** its impact on culture and climate or the plans are not supported by the data and information provided.	The program **identifies and describes** its impact on culture and climate. Program **addresses** how this impacts planning.	In addition to the meets criteria, the program provides data or research that **demonstrates** the need for additional resources.

Communication, Culture & Climate:

Describe how your program communicates its services, goals, and achievements to the campus and to the Community (outreach, events, website, campus emails, flyers, etc.).

Our program communicates its services through brochures, flyers, e-mails, and all campus outreach events, such as STEMAPALOOZA, Winterfest, CTE open house events to name a few all of which is designed to promote CTE programs to local community. Our brochures and flyers show the programs we offer. Embedded in each brochure and flyer is a list of our courses and the suggested sequence. We generously distribute them to the students and community members visiting our facilities during the outreach arranged tours that come through our program, outreach events and are in key locations for easy access to students and visitors. We also utilize mass e-mails, campus wide to advertise some of our upcoming course offerings such as the ones related to Flight operations and aviation maintenance.
The program is very active in outreach to the community. We do this by attending some of our feeder schools career days, college fairs and standalone program information sessions. Moreover, the Aeronautics program continuous to be an active participate in campus events for outreach. We have

conducted drone demonstrations to various local high schools as an outreach effort to inform students of potential aviation careers.

The Aero program regularly attends the Redlands airport Toys for Tots air show with an informational aero program booth. Additionally, we communicate our achievements through the presidents and dean's newsletter and the local Sun newspaper to highlight milestone program/student achievements. An example of such highlight news was the acquisition of a two hundred-thousand-dollar aircraft through a generous donation by a local Surgeon to help augment our Powerplant and Airframe maintenance program. Program Faculty maintain close relationships with local industry establishments in order to mutually promote both the latest industry trends and requirements in the Aeronautics and aviation field to our students as well as to conversely provide our students with possible employment and internship opportunities within these establishments.

In keeping with our strategic initiatives of campus climate, our graduates are thoroughly trained and have proven to be shining examples and good ambassadors of the department and college. We stress safety very heavily to all of our students through extensive safety briefings and on a daily basis. Our program has an excellent reputation in the aviation industry for quality instruction. We maintain a safe environment for our students to work in. We try to keep our classroom and lab areas clean and neat so that those coming to tour our area will have a good impression of our portion of the campus.

Describe how your program seeks to enhance the culture and climate of the college (events that serve student population as a whole, events that make programs more visual, events that promote interdivisional cooperation, etc.).

The aero program enhances the culture and climate of the college by actively participating in every campus events that foster program promotion to student populations through static displays of aircraft, simulation modules, engine displays, and sample aircraft maintenance demos. Example of such events are Winter fest, Club Rush, and STEMAPALOOZA. In addition, our division participates in any and all open house events that are open to both our student population as well as the public and middle school and high school students to be able to see our laboratory facilities that include many aircrafts, aircraft sections, engines, trainer modules, flight simulators to name a few. Many demonstrations are usually implemented to illustrate the kind of training that our program offers in terms of maintenance skills needed to become successful in the field.
The Aero department has pursued the introduction of a Drones program in which the students will learn how to operate the drones with proper safety procedures and to learn all the rules and regulations that have been instituted by the Federal Aviation Administration for Drones including preparing them to pass the certification exam. This has prompted the Geography department to entertain the possibility of including these classes within their GIS program since the use of drones are becoming an important part of that field, thus promoting interdivisional cooperation. Another department that Aero continues to have a close cooperation with is the Electronics department since they are working on developing a drone certification from the construction, troubleshooting, and maintenance as well as calibration and tuning of the drone aspects thus further demonstrating interdepartmental and collegial cooperation. In addition, many of the skills being taught and implemented within our programs such as metal sheet cutting, riveting or fiberglass and carbon fiber repair as part of aircraft structural and skin repair are mutually utilized with the Auto body department thus illustrating close interdepartmental cooperation and creating a collegial culture and climate within the college.

Describe one or more external/internal partnerships.

The Aero department has continued and continues to established excellent relationships and partnerships with local and regional aviation industry establishments. These efforts have culminated in creating internship opportunities with Skywest Airlines for students enrolled within our programs to directly utilize and enhance their work experience in the field of aircraft powerplant and structural maintenance and repair. Other noteable external partnership examples are: Unical Aviation Services, a local and regional aviation establishment specialized in cannibalizing old aircraft, refurbishing and reselling components and parts to major airlines. They have had many of their employees join our program to obtain their FAA certification in the respective discipline. Also, they have provided employment opportunities to our students graduating

from our department as well as donating aviation related items and materials for the use within our labs. United Parcel Service has also donated aviation related items and materials to our program as well as actively promoting our program to their employees. Moreover, Riverside Flight Academy and Worldwide Wings, both local private flight schools, offer our flight operations students discounted flying lessons. In addition, Redlands airport is in the process of offering internships within their airport operations department to our flight operations students.

The Aeronautics department has been developing, although slowly, internal partnerships with the following departments: Audio visual , Geology, Electronics, and machining with the goal of developing a Drone program that involves the construction, operation, flight certification, implementation, maintenance and repair aspects as related to the preceding departments listed

What plans does your program have to further implement any of these initiatives?

Our external partnership initiatives described above are ongoing and have been implemented through having members of all the above listed organizations attend our advisory committee meetings and be part of the committee to give us feedback as well as make constructive recommendations to modify, implement and include any new industry standards as well as to help create career pathways for our graduates in terms of internships and employment opportunities. Department faculty also maintains consistent communication with these individuals and organizations via emails or site visits both to our facilities or for our students to visit their facilities to gain valuable exposure to typical operational environments that they will encounter in real life.
Our internal partnerships are ongoing in terms of interdepartmental and interdivisional cooperation for the eventual development of a drone program.

IV: Questions Related to Strategic Initiative: Maintain Leadership & Promote Professional Development

Goal: SBVC will maintain capable leadership and provide professional development to a staff that will need skills to function effectively in an evolving educational environment.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Professional Development	The program **does not identify** currency in professional development activities.	Program **identifies current avenues** for professional development.	In addition to the meets criteria, the program shows that professional development has **impacted/expanded** the program and **demonstrates** that the program is positioning itself for growth.

Professional Development:

1. Discuss the ways that members of your department maintain currency in their field (conferences, workshops, technical trainings, etc.).

The program is FAA approved, audited, and inspected to meet the requirement of FAR Part 147. The purpose of this program does not change in curriculum or methods of instruction unless the FAA has issued a rule making change to FAR Part 147 which mandates the study areas, depth of instruction, and time requirement for each instructional unit. As a result, our department Faculty must maintain currency in the field which implemented in a unique way. The department has 13 adjunct Faculty,11 of which are currently actively employed in the aviation field in all its aspects. The FAA mandates ongoing technical training classes on aircraft familiarization, maintenance, troubleshooting and crew management. Therefore, our adjuncts maintain currency through their respective employment in the aviation industry because any aviation related organization must strictly adhere to the most current FAA requirements and thus their employees will automatically be subjected to taking workshops and technical training to keep current with industry standards and FAA regulations. Our Faculty also participate and attend professional Development workshops provided by the college to enrich their teaching and instructional skills as well as to promote a favorable learning environment to students.

2. Identify the professional organizations that your department and/or department members belong to and how those organizations meet professional development parameters.

All of our Faculty, including adjuncts possess FAA certifications and therefore are affiliated with the Federal Aviation Administration. Additional professional organizations our department as well as Faculty/staff members belong to are as follows: Redlands Airport Association, Women in Aviation, FAA Flight Safety, Civil Air Patrol, and AOPA (Aircraft Owners and Pilots Association). All of these aviation related organizations provide valuable and current information as well as workshops and training to members within their realm as it pertains to regulations, standards, new technologies utilized, operational methodologies, and other facets. Our respective faculty, being active members within these organizations benefit from these workshops and training and actively incorporates these skills within our program.

3. Discuss specific ways faculty and staff engage in professional growth (i.e. attend or present at conferences, establish training opportunities with other community colleges). Include future opportunities that are planned by faculty and staff. Discuss how professional development has impacted/expanded the program.

Our Faculty actively engage in professional growth activities through their employment in the aviation private industry since 80 % of them are currently employed in the aerospace industry. We have a unique situation in that those Faculty that are employed by private industry are required by their respective organizations to attend aeronautics and aviation related conferences and training opportunities to keep them current within the field as to the latest technologies deployed as well as newest rules and regulations and standards adopted in the industry, thus keeping our faculty current and up to date and enabling to transfer this knowledge to our students and increasing program effectiveness. In addition, the remaining staff and faculty can attend the same conferences that private industry sends our adjunct faculty to attend. An example of this is the Aerospace Maintenance Competition held every year which our staff has attended as judges, team leaders, and advisors. The experience and knowledge they bring back to the classroom is invaluable: it is current and relevant. Moreover, some of our instructors attend ongoing aircraft familiarization courses with their respective companies which, in turn, provides more effective instructors for our students.

Some of the collaboration and training opportunities we do with other community college comes through our advisory committees. Our staff attend advisory committees for other colleges as professional experts

in their field. Some of the community colleges are Chaffey, Mount San Antonio, West Los Angeles, Victor Valley and Spartan Aviation College.

In addition, an example of establishing training opportunities with other community colleges is with composite material as used in airframe structural repair. Three of the colleges, including ours, attended the Regional Industry Advisory with Larry McLaughlin, a regional deputy sector navigator for program development in the transportation field. The result of this regional collaboration and training development activity was the development of an advanced composites course to repair modern airframe structures utilizing carbon fiber. Further intercollegiate collaboration culminated in the decision by all representatives from the program member colleges to buy the same brand of equipment for training in order to maintain regional program uniformity. Currently, intercollegiate collaboration is continuing in regards to the newly developed composite material course in all its aspects.

V: Questions Related to Strategic Initiative: Effective Evaluation & Accountability

Goal: SBVC will improve institutional effectiveness through a process of evaluation and continuous improvement.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Mission/ Statement of Purpose	The program **does not have** a mission/ statement of purpose, or it **does not clearly link** with the institutional mission.	The program **has** a mission/statement of purpose, and it **links** clearly with the institutional mission.	
Productivity	The data **does not show** an acceptable level of productivity for the program, or the issue of productivity is not adequately addressed.	The data **shows** the program is productive at an acceptable level.	The program functions at a highly productive level and has planned for growth as appropriate.
Relevance, Currency, Articulation	The program **does not provide** evidence that it is relevant, current, and that courses articulate with CSU/UC, if appropriate. Out of date course(s) that were not launched into Curricunet by Oct. 1, 2019 may result in an overall recommendation no higher than Conditional.	The program **provides** evidence that the curriculum review process is up to date. Courses are relevant and current to the mission of the program. Appropriate courses **have been articulated** or transfer with UC/CSU, or **plans are in place** to articulate appropriate courses.	In addition to the meets criteria, the program **discusses plans** to enhance current course offerings that link to student/community needs and positions the program for improved student outcomes.

Challenges	The program **does not incorporate** weaknesses and challenges into planning.	The program **incorporates** weaknesses and challenges into planning.	The program **incorporates** weaknesses and challenges into planning that demonstrate the need for expansion.

Mission and Purpose:

San Bernardino Valley College maintains a culture of continuous improvement and a commitment to provide high-quality education, innovative instruction, and services to a diverse community of learners. Its mission is to prepare students for transfer to four-year universities, to enter the workforce by earning applied degrees and certificates, to foster economic growth and global competitiveness through workforce development, and to improve the quality of life in the Inland Empire and beyond.

What is the mission statement or purpose of the program?

Our mission is to provide a diverse community of learners high-quality education, knowledge, skills, and training to successfully enter the work force and gain employment in the aviation maintenance technology industry or flight operations field, be successful at numerous levels of employment, including commercial, corporate, or general aviation maintenance, and provide them the foundation necessary to continue to learn and progress in their field of endeavor. In addition, the program strongly adheres to the Federal Aviation Administration stringent standards and is certified by the FAA under Federal Aviation Regulation Part 147.

How does this mission or purpose relate to the college mission?

The Aeronautics program mission correlates and parallels the college mission. We want our diverse community of learners to succeed! We provide our students a high-quality hands-on learning experience to accompany their ability to understand theory, the ability to think critically, and the capacity to apply that knowledge in a real-world setting in accordance with strict guidance, rules, and regulations. Possessing these valuable skills will lead them to vastly improve their economic standing and to foster economic growth and improve their competitiveness in the labor market in which they will be a valuable asset and an example of workforce development. Our students do very well because we provide our diverse student population with quality training, skills and knowledge necessary to succeed in business, industry, and their chosen professions in a multicultural society

Productivity:

Provide additional **analysis and explanation** of the productivity data and narrative in the EMP summary if needed. Use data from charts (FTES; Enrollment; FTFE and WSCH per FTFE). Explain any unique aspects of the program that impact productivity data, for example, Federal Guidelines, Perkins, number of workstations, licenses, etc.

The Aero department has initiated an AMT evening program in addition to our daytime program and the enrollment numbers have risen. As per the latest EMP duplicated enrollment has risen from 273 in years 16-19 to 656 in years 18-19. This is also attributed to the excellent outreach efforts that have been instituted to bring in current industry employees from our advisory partnership companies so they may obtain their A&P (Airframe and Powerplant) certifications. In fact, an aggressive outreach campaign has been instituted by our Full time Faculty with the support of our existing part time faculty and they have been able to secure a career pathway for many of the employees of major industry players such as Unical, United Parcel Service (Aviation Division), and Sky West to send their employees to attain their A&P licenses through our program. As a result, our enrollments have increased dramatically. It is also important to note that prior to offering the afternoon program, our morning

program beginning courses were capped at 25 students due to limited lab equipment to student ratios and FAA regulations. And therefore, by looking at the most current EMP data, which only reflected the morning program enrollments, the FTEF numbers has improved dramatically from the previous year from an FTEF of 7.89 to 12.67. However, the WSCH per current FETF decreased from 367 to 307. The reason for this decrease remains due to the lab intensive curriculum that is mandated by the FAA and the work station and equipment available to deliver a quality curriculum mandates that the class size be reduced and thus pushing down the WSCH number. However, we are predicting that this ratio will slightly improve after the new enrollment statistics are counted. In addition to all the above, our partnerships with Worldwide Wings, Riverside Flight Academy, SkyWest Airlines, Unical, and United Parcel Service and the development and introduction of our new certificates and degrees are surely going to increase our enrollment bottom line and further improving both statistical numbers discussed above.

Relevance and Currency, Articulation of Curriculum:

The Content Review Summary from Curricunet indicates the program's current curriculum status. If curriculum is out of date, explain the circumstances and plans to remedy the discrepancy. In addition, if you have courses which your program has not offered in the last two years, please explain need to maintain course in catalog. (NOTE: If the report is inaccurate, contact Mary Copeland, Co-Chair, Curriculum Committee, (mcopel@valleycollege.edu) or Kay Dee Yarbrough, Administrative Curriculum Coordinator, (kyarbrough@sbccd.cc.ca.us) for updated information.

All course sections are current, and content reviewed to be up to date to any and all changes required by FAA. All listed active courses are offered

CURRICUNET REPORT:

Applied Technology, Transportation & Culinary Arts

Aeronautics

Course	Status	Last Content Review	Next Review Date
AERO 015 Nano Composite Technology	Active	11/21/2016	11/21/2022
AERO 021 Aviation Fundamentals	Active	11/21/2016	11/21/2022
AERO 022 Private Pilot Ground School	Active	11/21/2016	11/21/2022
AERO 024 Aircraft Powerplants	Active	11/21/2016	11/21/2022
AERO 025 Flight Safety	Active	11/21/2016	11/21/2022
AERO 026 Airframe Structures	Active	11/21/2016	11/21/2022
AERO 027 Airport Certification and Operations	Active	11/21/2016	11/21/2022
AERO 034 Civil Aviation Management and Laws	Active	11/21/2016	11/21/2022
AERO 040 Instrument Ground School	Active	11/21/2016	11/21/2022
AERO 046 Aviation Weather	Active	11/21/2016	11/21/2022

AERO 050 General/Calculations and Basic Electricity Airframe and Powerplant Technologies	Active	02/28/2017	02/28/2023
AERO 050L General Laboratory/Calculations and Basic Electricity Airframe and Powerplant Technologies	Active	02/28/2017	02/28/2023
AERO 051 General/Materials and Servicing Airframe and Powerplant Technologies	Active	02/28/2017	02/28/2023
AERO 051L General Laboratory/Materials and Servicing Airframe and Powerplant Technologies	Active	02/28/2017	02/28/2023
AERO 052 Airframe Maintenance - Structures	Active	02/28/2017	02/28/2023
AERO 052L Airframe Maintenance Laboratory - Structures	Active	02/28/2017	02/28/2023
AERO 053 Airframe Maintenance - Systems and Components	Active	02/28/2017	02/28/2023
AERO 053L Airframe Maintenance Laboratory - Systems and Components	Active	02/28/2017	02/28/2023
AERO 054 Powerplant Maintenance - Reciprocating Engine Overhaul	Active	02/28/2017	02/28/2023
AERO 054L Powerplant Maintenance Laboratory - Reciprocating Engine Overhaul	Active	02/28/2017	02/28/2023
AERO 055 Powerplant Maintenance - Accessory Overhaul	Active	02/28/2017	02/28/2023
AERO 055L Powerplant Maintenance Laboratory - Accessory Overhaul	Active	02/28/2017	02/28/2023
AERO 098 Aeronautics Work Experience	Active	11/26/2018	11/26/2024

AERO 600 Introduction to Aviation Technology	Active	11/20/2017	11/20/2023
AERO 621 Aviation Fundamentals	Active	11/04/2019	11/04/2025
AERO 622 Private Pilot Ground School	Active	11/04/2019	11/04/2025
AERO 624 Aircraft Powerplants	Active	11/04/2019	11/04/2025
AERO 625 Flight Safety	Active	11/04/2019	11/04/2025
AERO 626 Airframe Structures	Active	11/04/2019	11/04/2025
AERO 640 Instrument Ground School	Active	11/04/2019	11/04/2025
AERO 646 Aviation Weather	Active	11/04/2019	11/04/2025
AERO 650L General Laboratory/Calculations and Basic Electricity Airframe and Powerplant Technologies	Active	10/23/2017	10/23/2023
AERO 651L General Laboratory/Materials and Servicing Airframe and Powerplant Technologies	Active	10/23/2017	10/23/2023

AERO 652L Airframe Maintenance Laboratory - Structures	Active	10/23/2017	10/23/2023
AERO 653L Airframe Maintenance Laboratory System and Components	Active	10/23/2017	10/23/2023
AERO 654L Powerplant Maintenance Laboratory - Reciprocating Engine Overhaul	Active	10/23/2017	10/23/2023
AERO 655L Powerplant Maintenance Laboratory - Accessory Overhaul	Active	10/23/2017	10/23/2023
AERO 900 Lab Studies in Aviation Maintenance Technology	Active	11/09/2015	11/09/202

Articulation and Transfer

List Courses above 100 where articulation or transfer is **not** occurring	With CSU	With UC

Describe your plans to make these course(s) qualify for articulation or transfer. Describe any exceptions to courses above 100.

Even-though our courses were renumbered below 100, some of our courses are currently accepted for credit at various institutions. Southern Illinois University and Embry–Riddle Aeronautical University do recognize these classes for some transfer credit.

Currency

Review all mentions of your area in the catalog. Is the information given accurate? If not, briefly identify the areas that will be revised.

All courses listed are being have accurate information and proper descriptions.

If any courses are no longer offered, list them here. (Include Course # and Title of the Course). If the information is inaccurate and/or there are listed courses not offered, how does the program plan to remedy the discrepancy?

Follow the link below and review the last college catalog data.
http://www.valleycollege.edu/academic-career-programs/college-catalog.aspx

If your information needs updating, contact Kay Dee Yarbrough, Administrative Curriculum Coordinator, (kyarbrough@sbccd.cc.ca.us).

No update required

Planning: Challenges/Trends/Strengths:

Referencing the narratives in the EMP summary, provide any additional data or new information regarding **planning** for the program.

- In what way does your planning address trends that will impact the program?
- In what way does your planning address challenges in the program?
- In what way does your planning capitalize on strengths in the program?

If you addressed other plans within the efficacy document, **readdress** them here.

Trends in the Aeronautics industry as indicated from our advisory board committee members as well as human resource data from national aviation maintenance companies is increasing steadily. The data indicate a large portion of the maintenance and inspection workforce, up to 45%, will be retiring in the next decade. This has caused the FAA to embark on a nationwide advertising campaign to promote aviation careers. Demand for qualified technicians is steady and forecast to grow. These positions will require qualified candidates to possess the FAA Airframe and Powerplant certifications that our program directly supports. We have seen this trend through strong enrollment increases in our program, especially from employees currently working in the aviation industry that are being required by their employer to obtain their A&P licenses. Henceforth, as long as our program is FAA approved and sanctioned, then any regulation change and update will closely be followed and adhered to so as to keep its relevancy and efficacy. It is important to note, that 95 percent of our students successfully completing our program do obtain their FAA licenses, a testament to the quality, strength, and validity of our program. So our planning always involves keeping the program completely in line with FAA standards as well as adhering to their regulations. In addition, there exists a few private schools that do offer a similar A&P programs however, they are prohibitively expensive for our economically challenged community of students. Thus, providing an excellent educational and hands on training program with affordable rates remains a strong recruiting advantage for our program and program planning has included recruitment efforts and marketability strategies to capitalize on these advantages. A notable trend in the industry is that commercial pilots and Flight operations personnel are in an ever-increasing demand as the industry grows and existing pilots are retiring. Hence we have created a flight operations certification as well as a Flight operations management certification and degree. And as a result, the department has hired a licensed pilot with flight operations experience and certifications as a temporary full time faculty to teach these courses for one year but has now exceeded his one-year status and has gone back to adjunct status. It is apparent from the previous discussions that we are facing challenges because we have doubled our FTES as well as our FTEF from four years ago and our FTEF is hovering above 12.56 with only one full time Faculty and 13 adjunct instructors. To address this challenge, we have consistently and annually, as part of planning in the program review process, included a request to hire additional full time faculty to help support the program because it is clearly evident that the only full time faculty is barely adequate to support the tremendous growth experienced by the department. It is also important to note that historically, the department had three full time Faculty that have since retired but never replaced. Additionally, included in our planning, program administrators continue to apply to receive funding from different grant sources in order to acquire additional state of the art trainer equipment and mock ups that tend to be

expensive in order to sustain our successful program. And as indicated earlier, through our faculty and industry partnerships that have been established and continue to be established, we have been able to obtain many valuable and useful parts and materials as donations from companies such as Unical and UPS in addition to a donation of a two-hundred thousand dollar aircraft donation from a local community member. The dept. continues to seek industry and community support for equipment that may be used for training purposes. Such planning and networking with industry is a vital part of the planning that will address the challenges that are faced.

VI: Questions Related to Strategic Initiative: Provide Exceptional Facilities

Goal: SBVC will support the construction and maintenance of safe, efficient, and functional facilities and infrastructure to meet the needs of students, employees, and the community.

SBVC Strategic Initiatives: Strategic Directions + Goals

	Does Not Meet	Meets	Exceeds
Facilities	The program **does not provide an evaluation** that addresses the sustainability of the physical environment for its programs.	Program **provides an evaluation** of the physical environment for its programs and **presents evidence** to support the evaluation.	In addition to the meets criteria, the program has **developed a plan** for obtaining or utilizing additional facilities for program growth.

Facilities:

1. Describe current facilities:
    a. Classroom space
    b. Access to equipment
    c. Maintenance
    d. Technology
    e. Other

a. The Aero Department is unique in that its classroom/lab space is shared, meaning that lectures for some classes are held in the same area as the lab due to having the ability to show and demonstrate the different mock-up and heavy trainer demos needed to be utilized during the lecture to illustrate subject matter principles. However, due to increased enrollment and program growth, some lectures that need to be held in these lab areas are held in other departments and buildings making it difficult if not impossible to use mock-ups and demos due to the distance from the aero labs.

b. Our lab consists of many airplanes, propeller engines, jet engines, mock-ups of sub aircraft parts, cutaways, sheet metal machines, trainer apparatus, aircraft cutaways, aircraft parts, composite curing machines, etc. all have been located strategically and in the most efficient layout to provide maximum access to said equipment. However, due to the limited space, access to equipment has become limited and challenging to work within. When students need equipment or mock-ups, many times, they find themselves with the instructor having to move equipment around the shop to gain access for use. This endeavor at times eats up valuable lab time. As a result, more space will definitely be a viable solution to said problem. Department administrators are currently working with the

architects and planners of the new CTE building that is going to be built in order to meets the needs of the department.

c. The Aeronautics building is basically a simple hanger type building that doesn't have any HVAC systems. Not much mechanical upkeep is required except for lighting and other minimal facilities maintenance. However, due to the lack of HVAC systems, the lab/lecture space gets up over 100 degrees during the summer which can be counter-conducive to the learning environment. Nevertheless, the building is maintained, and any concerns or discrepancies are quickly remedied.

d. We currently possess some state of the art trainers and simulators within the facilities, however, we are continuously upgrading our old equipment with the newest available up to date equipment and trainers within our budget capabilities. However, we are lacking some desktop computers in the lab areas with access to the internet as students frequently require to research and look up information from required aviation sites such as FAA.gov (Federal Aviation Administration website).

2. Provide a **sufficient discussion of current and projected needs of the facilities** in your area and their impact on the educational environment for your students (classroom facilities, technology, space needs, maintenance issues, etc.). Address sustainability of the facility (including technology needs).

Currently the Lab space gets extremely hot during summer months to include August. At times the temperature reaches above 100 degrees in the lab with sustained temperatures in the low 90's. The lack of air conditioning makes the learning environment intolerable at times. Some of our student population has no reprieve from the heat in their homes and that is compounded by the heat they have to deal with in the labs. Students will spend up to 6 hours in the lab at a time. The aero lab building needs some type of air conditioning system in order to improve the learning environment. In addition, lab space is lacking some desktop computers with access to internet as students frequently require to research and reference information from required aviation websites from manufacturers of equipment to FAA standards and regulations pertaining to the various systems they are working on.

Although the facility is well maintained and students and staff take pride in its appearance and keep it clean and organized, it need upgrades. The electrical power required for some our equipment is limited to one area. Students need to move equipment in order to have access to power outlet that is used to power-up our aircraft. The department has outgrown the footprint of the lab building due to the increased enrollment and the added night courses. Equipment and mockups are constantly being used day and evening. Were in the past with just a day program we were able to strategically place equipment around the lab that wasn't being used. Currently the majority of the equipment is being used and it has become a constant inconvenience and loss of student time.

VII: Previous Does Not Meets Categories

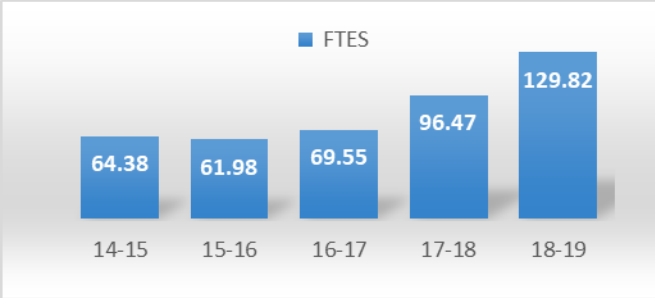
Listed below, from your most recent Program Efficacy document, are those areas which previously received "Does Not Meet."

Address, in **DETAIL AND WITH SPECIFIC EXAMPLES**, how each deficiency was resolved. If these areas have been discussed elsewhere in this current document, provide the section where these discussions can be located.

Productivity: Committee recommends that it is critical to reverse trend in loss of students. Faculty Chair working with Committee to meet criteria. Concern over steady decline of full-time enrollments; program was failing before loss of full-time faculty. Full-time faculty has been replaced now. Lack of outreach could be factor. Clear plans (and action) for outreach must be formulated

Response:

We believe we have reversed the trend and continue increase enrollment through our outreach efforts. As previously mentioned in this report under Productivity, the aero department will continue in its outreach efforts to the feeder high schools, local airports, and include informing high school counselors of the aero programs offered at SBVC.



	14-15	15-16	16-17	17-18	18-19
Duplicated Enrollment	242	237	273	415	656
FTEF	5.98	5.84	5.98	7.89	12.67
WSCH per FTEF	323	319	349	367	307