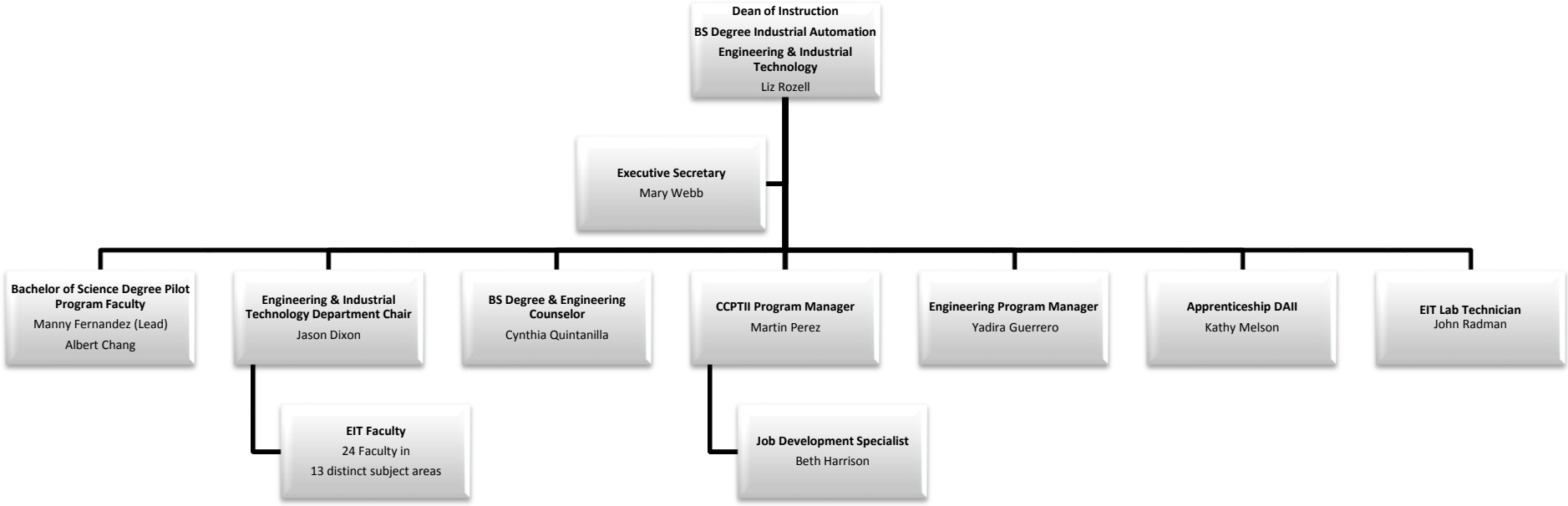
Bakersfield College
Program Review – Annual Update

Program Name: *Dean of Instruction Office Unit, Bachelor of Science in Industrial Automation Degree Program (BDP), Engineering and Industrial Technology (EIT) and Apprenticeship*

Program Type: ☐ Instructional ☐ Student Affairs ☒ Administrative Service ☐ Other

Bakersfield College Mission: Bakersfield College provides opportunities for students from diverse economic, cultural, and educational backgrounds to attain Associate and Baccalaureate degrees and certificates, workplace skills, and preparation for transfer. Our rigorous and supportive learning environment fosters students' abilities to think critically, communicate effectively, and demonstrate competencies and skills in order to engage productively in their communities and the world.

Describe how the program supports the Bakersfield College Mission: *This unit supports the instructional activities and programmatic planning in each of the programs within the Engineering and Industrial Technology Department, Apprenticeship and Bachelor of Science Degree Program in Industrial Automation. Support includes managing faculty and staff evaluations, enrollment management strategies, the development and monitoring of budgets, and the facilitation of effective communication within the unit. This aligns with the colleges mission by providing the support for a learning environment in which students can succeed academically and personally to attain Associate and Baccalaureate degrees and certificates, as well as developing workplace skills and preparing for transfer. The following organizational chart illustrates the area division of responsibilities.*



Program Mission Statement:
As a unit of Instruction, the mission of the Office of the Dean of the Bachelor of Science in Industrial Automation, Engineering and Industrial Technology, and Apprenticeship is to provide leadership in the development and evaluation of instructional programs, academic support services, faculty, and curriculum to ensure integrity and excellence of academics in these disciplines at Bakersfield College.

Instructional Programs only:

A. List the degrees and Certificates of Achievement the program offers
B. If your program offers both an A.A. and an A.S. degree in the same subject, please explain the rationale for offering both and the difference between the two.
C. If your program offers a local degree in addition to the ADT degree, please explain the rationale for offering both.

Progress on Program Goals:

A. List the program's current goals. For each goal (minimum of 2 goals), discuss progress and changes. If the program is addressing more than two (2) goals, please duplicate this section. Please provide an action plan for each goal that gives the steps to completing the goal and the timeline.

Program Goal	Which institutional goals from the Bakersfield College Strategic Plan will be advanced upon completion of this goal? (select all that apply)	Progress on goal achievement (choose one)	Status Update – Action Plan
1. Identify resources to support the development of an Engineering and Industrial Technology program at the Delano Center.	☒ 1: Student Learning ☒ 2: Student Progression and Completion ☒ 3: Facilities ☐ 4: Oversight and Accountability ☒ 5: Leadership and Engagement	☐ Completed: _____ (Date) ☐ Revised: _____ (Date) ☒ Ongoing: _____ (Date)	Continuing to offer welding and the introduction to engineering courses at the Delano Center. Hired three faculty to expand existing offerings to electronics, engineering, & industrial drawing and develop a new HVAC program to be housed at the DC.
2. Support the development of the curriculum in a baccalaureate degree within the Industrial Technology programs.	☒ 1: Student Learning ☒ 2: Student Progression and Completion ☐ 3: Facilities ☐ 4: Oversight and Accountability ☒ 5: Leadership and Engagement	☐ Completed: _____ (Date) ☐ Revised: _____ (Date) ☒ Ongoing: _____ (Date)	This goal is almost completed. There are three courses still in development, but all should be completed by December 31, 2017. A program modification was submitted last year and another modification will be submitted this year to allow the use of IGETC in addition to CSU GE Breadth to satisfy the degree requirements. This will better serve our students who transfer from other institutions.

3. Serve as the project director for the last year of the HSI STEM grant and the BC Administrative lead for the CCPT II grants.	☒ 1: Student Learning ☒ 2: Student Progression and Completion ☒ 3: Facilities ☒ 4: Oversight and Accountability ☒ 5: Leadership and Engagement	☐ Completed: _____ (Date) ☐ Revised: _____ (Date) ☒ Ongoing: _____ (Date)	The HSI STEM grant ends 9/30/2017 and final reporting will be completed in January. We are in the third year of the CCPTII grant and are including new pathways in this year of funding. This grant effectively supported dual enrollment and articulation in Welding, Industrial Drawing, Electronics, Ag Mechanics, Patient Care, Construction, and Business.
4. Seek additional federal grant funding and industrial donation opportunities.	☒ 1: Student Learning ☒ 2: Student Progression and Completion ☐ 3: Facilities ☐ 4: Oversight and Accountability ☒ 5: Leadership and Engagement	☐ Completed: _____ (Date) ☐ Revised: _____ (Date) ☒ Ongoing: _____ (Date)	This area continues to get support from industry with monetary donations for the engineering and baccalaureate programs and automobile donations. Expecting HVAC donation from Fresno City College. In addition, received significant funding from Strong Workforce. Applying for Prop 39 funding and possibly an NSF-ATE grant.
5. Guide a curricular reorganization within the EIT department.	☒ 1: Student Learning ☒ 2: Student Progression and Completion ☐ 3: Facilities ☐ 4: Oversight and Accountability ☐ 5: Leadership and Engagement	☐ Completed: _____ (Date) ☐ Revised: _____ (Date) ☒ Ongoing: _____ (Date)	Although much curricular work took place last year, there is still significant work planned for this year. Automotive completely redesigned their courses, degree and certificates; Occupational Safety and Risk Management received new course approvals and will be submitting the new degree program this fall; construction redesigned courses and will submit degree and certificate modifications this fall; manufacturing will submit a degree modification to include fabrication this fall; and the newly hired HVAC faculty will develop the curriculum for a new HVAC program.

B. List new or revised goals (if applicable)

New/Replacement Program Goal	Which institutional goals will be advanced upon completion of this goal? (select all that apply)	Status Update – Action Plan
	☐ 1: Student Learning ☐ 2: Student Progression and Completion ☐ 3: Facilities ☐ 4: Oversight and Accountability ☐ 5: Leadership and Engagement	

Best Practices:

Programs often do something particularly well; usually they have learned through assessment – sometimes trial and error – what solves a problem or makes their programs work so well. These are often called Best Practices and can help others. Please share the practices your program has found to be effective.

The Engineering and Industrial Technology area has developed an effective outreach program which includes a robust summer camp program for middle school and high school students, Engineering Day hosting over 1000 high school students, and several open houses for existing and potential BC students in EIT programs. These outreach events provide information about EIT careers, engage students in the exciting aspects of our programs, and capture interest in Bakersfield College.

Program Analysis:

Take a look at your trend data (all programs should have some form of data that is used to look at changes over time).

1. Please report on any unexpected changes or challenges that your program encountered this cycle:

In 2016-2017, Apprenticeship enrolled 147.7 FTES, a 6% decrease from last year. This program is fully staffed with adjunct faculty at a negligible FTEF. Engineering and Industrial Technology, along with the first junior class of the baccalaureate program, enrolled 679 FTES, a 1.5% increase from last year. Average FTEF is at 31 with 64% full-time contractual and 36% adjunct, overload, and summer.

2. How does your trend data impact your decision making process for your program?

Fluctuations in FTES in this area are often influenced by the economic state of various industries. Students can obtain well-paying jobs with the completion of some courses or certificates, but may disadvantage them for future job opportunities. The EIT department along with Apprenticeship and BDP comprise about 95% of the Industrial Technology and Transportation pathway. One of our goals this year is to implement steps to guide students to valuing degree attainment that potentially affects future earnings. Increased degree attainment will impact our FTES and will require increased integrated planning within our area. With the growth of the CTE office to include a strong job placement program, we anticipate increased interest in including internships and work experience as part of degrees within the area. This will be one way to communicate to students the value of a degree in a technical field.

3. Were there any changes to student success and retention for face-to-face, as well as online/distance courses? **N/A**

4. Were there any changes to student demographics (age, gender, or ethnicity) for the past cycle? **N/A**

Resource Request and Analysis:

Resource Request		If Fulfilled, Discuss How Previous Year's Requests Impact Program Effectiveness?
Positions: *Discuss the impact new and/or replacement faculty and/or staff had on your program's effectiveness.*	☒ 1: Classified Staff ☒ 2: Faculty	*I will let the academic programs under my area of responsibility address their position requests in more detail.* *For the 2016-17 academic year, we hired five new faculty in the area, two of which were replacements for retirements and three new faculty in growth areas. Growth included one faculty for a new program and two faculty to support expansion of engineering and electronics. This increased the number of evaluations, training, and guidance in curriculum development.* *In addition, we hired a new Engineering Program Manager to support initiatives with Project Lead the Way and the CSUB Title V Collaborative grant, along with a replacement for our lab technician due to a retirement. This has required increased integrated planning, training and supervision.*
Professional Development: *Describe briefly, the effectiveness of the professional development your program has been engaged in (either providing or attending) during the last cycle*	☐ 1: Provided Professional Development ☒ 2: Attended Professional Development	*I will let the academic programs under my area of responsibility address their professional development activities in more detail.* *Staff typically attend FLEX workshops for EXCEL training and have found those to be beneficial in skill building.* *The dean participated in campus training for emergency incidents, local industry summits related to energy and workforce preparation. Within the role of the administrative Curriculum Committee co-chair spent much time in training on eLumen, an integrated learning outcomes management platform. All of these professional development activities have served to increase the effectiveness of administrative operations.* *Over the last year the designated Baccalaureate Degree Program (BDP) counselor attended and/or presented at numerous statewide BDP meetings and summits, serving as the primary liaison for the program.*

Facilities: *If your program received a building remodel or renovation, additional furniture or beyond routine maintenance, please explain how this request or requests impacts your program and helps contribute to student success.*	☒ 1: Space Allocation ☒ 2: Renovation ☒ 3: Furniture ☐ 4: Other ☐ 5: Beyond Routine Maintenance	*I will let the academic programs under my area of responsibility address their facilities requests in more detail.* *Due to growth in academic programs resulting in additional faculty, existing office space was renovated and identified storage areas were repurposed for office space. This included addition of air conditioning, data access, and office furniture purchases. Of course, faculty office space which provides an environment for addressing student concerns impacts student success.*
Technology: *If your program received technology (audio/visual – projectors, TV's, document cameras) and computers, how does the technology impact your program and help contribute to student success?*	☒ 1: Replacement Technology ☒ 2: New Technology ☐ 3: Software ☐ 4: Other_____	*I will let the academic programs under my area of responsibility address their technology requests in more detail.* *Through Strong Workforce funding we were able to redesign and upgrade an existing computer lab and add new AV projectors, TVs, and document cameras to four classrooms. In addition, the general college fund and the BDP startup funds were used to renovate a classroom for a new robotics lab for the baccalaureate degree program. Computer and media technology were added to this lab. All of these projects impacted direct instructional delivery to students.*
Resource Request		**Discuss How Effective Request is for Student Success?**
Other Equipment: *If your program received equipment that is not considered audio/visual or computer equipment technology, please explain how these resources impact your program and help contribute to student success.*	☒ 1: Replacement ☐ 2: New ☐ 3: Other_____	*I will let the academic programs under my area of responsibility address their equipment purchases in more detail.* *We did not receive the requested copier during the 2016-17 academic year, but were recently promised a new copier is in the works for delivery within a few weeks.*
Budget: *Explain how your budget justifications will contribute to increased student success for your program.* (*Fiscal requests will be submitted by the*		*Engineering and Industrial Technology programs do require healthy budgets to purchase consumables, specialized industry software interfaces for equipment, and operational license, as well as maintaining and repairing equipment. Without these funds, students would not receive adequate instruction and training to be successful in industry.* *The BDP is funded under the dean's budget and provides for the requirements outlined above, however it also includes funding for travel required by the state to support the ongoing pilot*

faculty chair and/or area administrator.)		*program, curricular support, and some unanticipated equipment needs. Since this program is still in its infancy, student success is truly contingent on adequate funding of the atypical costs of a baccalaureate program.*

Conclusions & Snapshot:

Present any conclusions and findings about the program. This is an opportunity to provide a brief abstract or synopsis of your program's current circumstances and needs. Consider this a snapshot of your program, if someone were to only read this portion of your annual program review.

To provide the best snapshot of this area, we need to return to the mission statement: As a unit of Instruction, the mission of the Office of the Dean of the Bachelor of Science in Industrial Automation, Engineering and Industrial Technology, and Apprenticeship is to provide leadership in the development and evaluation of instructional programs, academic support services, faculty, and curriculum to ensure integrity and excellence of academics in these disciplines at Bakersfield College.

Administrative and classified staff have provided the operational support to faculty and students in this area. In addition to the demands of faculty evaluations, scheduling, purchasing and tracking of equipment, project management of renovations and upgrades, this area has also provided significant leadership in major initiatives in the academic programs specific to this area, campus-wide initiatives, district initiatives, and community initiatives. Some examples include:

- *The first junior class for the baccalaureate degree was admitted and completed coursework. Our Administrative Unit provided assistance in curriculum development, accreditation evaluation by ACCJC and external evaluation by the RP group, renovations of labs and offices, data collection and student tracking, redesign of the Industrial Automation website, and continuous analysis of the program outcomes.*
- *Guided the major curricular redesign of two programs in the unit and the curriculum development of one new program. Directed collaborations with local high schools and Taft College to articulate and/or offer dual enrollment courses to provide clearly defined CTE pathways.*
- *As Curriculum Committee Co-Chair, provided leadership in streamlining the curriculum approval process and the implementation of eLumen.*
- *As a member of the Accreditation & Institutional Quality Committee, became the administrative lead for the Accreditation Institutional Self-Evaluation Report due in 2018.*
- *Together with the area program managers, provided leadership in regional collaborations on career pathways and collaborations with CSUB as part of a Title V grant.*
- *Within the community, served on non-profit boards and collaborated with industry partners.*

As a result, students have benefitted from the evaluation and analysis of our programs and processes, as well as our community interactions. Efforts have provided a clearer career pathway communicated to students and successful collaborations with academic and industry partners that yield potential internships, additional scholarships and donations specific to programs in the unit, opportunities for early college course success, and increased funding for current equipment technologies to improve instruction.