State of Industrial Automation Baccalaureate Program at Bakersfield College

The last two years of the Industrial Automation program have been a period in which initial projections of a substantial upward trajectory with regard to enrollment have yet to be actualized. An under staffed program with an unclear strategic direction were among the challenges that contributed to the program’s slow growth. Under a unified vision and strategy, plus a team designated specifically for the oversight of activities including elimination of logistical challenges and discovering opportunities to encourage the program’s growth, the strategic plan is being executed in a manner that is discernible and immediate.

As the President of Bakersfield College’s foci includes the expansion and sustainability of the Industrial Automation program, direct action has been taken to strengthen internal systems with increased attention toward engaging students both on campus and through collaborative initiatives such as Early College and Dual Enrollment. These efforts benefit the community of current and future college-goers while ensuring the longevity of the Industrial Automation’s Baccalaureate program.

The above graph represents the numbers of students enrolled through 2019, including the projected enrollment Spring 2020 through Spring 2022. The number of students enrolled is projected to increase considerably from 2019-21 (i.e., 65% growth from 2020-21 and 57% projected growth from 2021-22) if the pilot program’s sunset date is extended beyond June 2026. However, if the sunset date remains, enrollment could decrease or cease altogether beyond 2022. Finally, the numbers displayed do not consider staff current efforts to identify student declarations on campus and in Early College and Dual Enrollment participating high schools.
The graph below represents prior graduation rates accompanied by projected graduation rates for 2020-23. Projected graduation rate (*) increases are based on an improved number of students in the program and students in the program attempting to graduate prior to the expected sunset date (June 2026). Also, the number of graduates could be impacted if students take longer than expected to complete their course of study (selecting part-time over full-time student status) or if the student is unable to enroll into impacted GE courses.

**BS INDA Graduates, by Graduation Spring Term**

<table>
<thead>
<tr>
<th>Year</th>
<th>BS INDA Graduates</th>
</tr>
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<tbody>
<tr>
<td>2018</td>
<td>7</td>
</tr>
<tr>
<td>2019</td>
<td>13</td>
</tr>
<tr>
<td>2020</td>
<td>10</td>
</tr>
<tr>
<td>2021</td>
<td>7</td>
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<tr>
<td>2022*</td>
<td>15</td>
</tr>
<tr>
<td>2023*</td>
<td>20</td>
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**Events and Actions Taken**

In order to increase enrollment and graduation rates exponentially, the Industrial Automation program personnel with the approval of the President mobilized a team from multiple departments to support efforts to dramatically increase movement within key areas:

- **Student Major Declarations**: Students major declared status allows personnel to better identify those interested in the program and offering continuous support (counseling, tutoring, advice, guidance) from registration through completion. The ability to declare students early also allows program personnel to support the student through transition from H.S. to college and for those currently enrolled in BC, to make the transition into the Industrial Automation pathway as seamless as possible.

- **Increasing Dual Enrollment and Early College Reach**: Expanding the Early College and Dual Enrollment programs into 20 additional H.S. throughout Kern county would be a tremendous opportunity for rural students who need access to collegiate courses. These initiatives also create direct pathways into college majors like Industrial Automation which could act as a significant boon for the program.

- **Remedy Errors on Website**: To ensure seamless perusal and comprehension of program specific information, the Communications team and the Office of Institutional Effectiveness is working with program staff to address concerns identified on the website, including content reduction, Program Mapper corrections and course catalogue additions.
• **GE Course Impact:** General Ed courses are significantly impacted on campus due to the popularity of the courses creating limited access to them. Program personnel is working with department leads to uncover opportunities to expand GE course offerings (online, weekends and evenings).

• **Reevaluate marketing material:** Communications and Design team are working with program personnel to develop new marketing material. Material the is audience specific and delivers an actionable message to students and parents.

• **Program Pathway Map:** The map offers a simplified version of the program’s courses, outcomes and benefits which could directly impact the students understanding of the program. The map will be disseminated campus wide.

• **Develop a marketing subcommittee:** Program personnel to work in concert with the advisory committee to develop a robust and diverse advisory committee, followed by a marketing committee from multiple industries that align with the needs of the students and program marketing strategies.

• **Program added to Starfish.** Adding the Industrial Automation program to the Starfish platform offers a tremendous opportunity to better access and provide support to students. Better aligning them with resources, in counseling, tutoring, faculty etc. Staff maximizing utilization of this program could help increase student academic success and completion rates.

• **Support from CTE to increase Articulation Agreements:** Program personnel working directly with the CTE Director and three Ed Advisors focused on connecting the program with additional resources designed to increase articulation agreements from area colleges throughout the region which if could substantially increase the number of transferring Juniors & Seniors into the program. This could have a direct impact on graduation rates.

**Looking Ahead at the Next 3 Years**

As the Industrial Transportation and Technology Department considers the future of the Industrial Automation Baccalaureate program at BC, a targeted approach to ensure the program grow is essential:

• **Building on the Strength of Existing Initiatives:** With program completion being the goal for students entering the program. Staff and faculty have uncovered multiple opportunities to increase enrollment and support students throughout their academic course of study at BC.

There are a number of factors that have contributed to declining enrollment and lower graduation rates. However, staff with the full support of President Christian are taking steps to address fundamental challenges within the program, directing personnel to assist staff in strengthening the program and working with staff and faculty to ensure the program is healthy, with increased enrollment year over year and additional faculty present when needed to ensure student success.