



Educational Master Plan

Executive Summary

Building upon more than 100 years of excellence, Bakersfield College continues to contribute to the intellectual, cultural, and economic vitality of the communities it serves.

Message from the President

Bakersfield College (BC) started in 1913 as *a vision and a plan* for educational opportunity and community service with 13 students in a borrowed classroom on the Kern High School campus. From that hopeful start, BC now provides approximately 30,000 students a year with educational opportunity, serves as a cultural center for its community, and trains the workforce for a vibrant community of industry partners.

BC's Vision today remains true to that founding vision:

“Building upon more than 100 years of excellence, Bakersfield College continues to contribute to the intellectual, cultural, and economic vitality of the communities it serves.”

The visionaries of 1913 could not have imagined the growth or rapidly changing society, however, they would instantly recognize the individuals today who tirelessly help our students (many still first in their families to go to college) attain their dreams. It is the shared work of college faculty, staff, and administrators, and our community.

BC's Mission Statement affirms diversity and a commitment to meeting diverse needs. It frames the fundamental work of providing the skills and academic preparation, certificates, and both associates and baccalaureate degrees that lift our students and fuel our economy.

“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.” (Approved May 7, 2015.)

BC's Core Values make visible the importance of *Learning, Integrity, Wellness, Diversity, Community, and Sustainability* that this college community embodies in its daily work.

BC's 2017-2020 Educational Master Plan embarks on a systematic *Guided Pathways* redesign of how we guide students to complete their educational goals. *Guided Pathways* is built on four pillars:

1. **Clarifying educational pathways** for both Career Technical Pathways and Transfer Pathways.
2. **Getting students on the path** starts by getting 9th grade students to see college in their futures.
3. **Keeping students on the path** calls us to ensure that every precaution is taken to keep students on their educational pathway to degree completion.

FOUR PILLARS OF GUIDED PATHWAYS



4. ***Ensuring learning*** invites us to develop a quick learning environment both in and out of the classroom to create adaptive learners who can communicate effectively, think critically, demonstrate competencies, and engage with their communities.

The 2017-2020 Educational Master Plan calls for an approach that better serves BC's 30,000 students by grouping them into 18 completion communities – 10 meta-majors and 8 affinity groups, which include the identified underrepresented groups in BC's Equity Plan. Each meta-major and affinity group will be surrounded by *completion coaches* ranging from 10 to 20 faculty and staff that will form a safety net around their cohort of students. The ***high-touch***, personalized approach of these *completion coaching communities* combined with the ***high-tech*** data analytics will help coaches to monitor progress and target student communications. For more details, see Chapter IV.

I am very proud of this work, led by our Dean of Institutional Effectiveness and a small, dedicated steering committee. For a more complete listing of those involved, see the Acknowledgements section. The work was comprehensive and inclusive. The committee gathered documents that analyzed academic areas of study for all students, including grant proposals and updates, new initiatives, instructional program reviews, and multiple sources of national, state, county and local data. The committee conducted interviews and focus groups with various faculty and staff representing Career and Technical Education, transfer, basic skills, and technology. The interviews explored how to best serve students in alignment with the college's Strategic Directions Plan, which is linked to the Program Review process and resource allocation.

Draft versions of the EMP were distributed to college-wide committees, and to specialized areas for review. Faculty, staff, administrators, and students carefully reviewed the content, and implications of this document during the spring semester of 2017.

The 2017-2020 EMP was reviewed in draft and final forms in all of the governance committees and posted to the college website at <http://www.bakersfieldcollege.edu/emp> to provide accessibility to all stakeholders. The EMP was approved by the BC Academic Senate on April 5, 2017, by BC College Council on April 7, 2017, and by the KCCD Board of Trustees on August 10, 2017.

Bakersfield College began with a vision and a plan. Planning is the work that makes vision a reality, and those who contributed with hard work and dedication on this new *2017-2020 Educational Master Plan* have helped ensure the success of our collective, shared vision well into the future.



With much Renegade Pride and Collegiality,

Dr. Sonya Christian,
President, Bakersfield College

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History and Overview

Bakersfield College has been serving students in Kern County since 1913. Last year, BC served over 27,000 students.

How does Bakersfield College continue to meet the growing needs of a community characterized by many students that live within financial and educational resource gaps? How does the college maintain rigor yet address timely completion, valuing each student's goals and life challenges? The BC blueprint has been adjusted over the years and influenced by many forces. The role of this Plan is to describe, evaluate and focus that work. BC's Institutional Learning Outcomes (ILOs) represent over-riding competencies students should complete in the course of their learning at the college.

Funding at the college is strong and shows increasing restricted (categorical and grant) funding and reserves.

Category	2013-14	2014-15	2015-16	2016-17
Total GU001 Budget	\$68,122,615	\$74,983,068	\$83,600,477	\$92,452,895
Reserves	\$1,957,271	\$4,108,342	\$5,849,905	\$6,566,038
Restricted Funds	\$9,491,453	\$9,398,048	\$11,931,995	\$16,899,264

Categorical programs, which allow for innovation and implementation of new initiatives, have been increasing. These categorical programs are integrated into the college through strategic planning and are re-evaluated with an eye towards institutionalization. No grant or restricted funding source is just another initiative; rather, a strategic opportunity for college-wide rethinking of how BC approaches the work of student success.

The Guided Pathways redesign represents a comprehensive rethinking that will significantly improve student degree completion.

Guided Pathways

By 2020, California will need more than one million additional workers with degrees. But, there is a looming gap in completion of those degrees and transfer to four-year colleges in California, especially for historically underrepresented student populations¹.

Historically, two thirds of Bakersfield College's students have not completed a degree or transfer. Of the more than 27,000 students at BC, 21.9% were from areas of high poverty; a rate that has increased from 18.1% in 2007 (California rate 15.3%). Kern County educational attainment is low,

¹ Patricia Gándara, UCLA and Marcela Cuellar, UC Davis (July 2016) The BACCALAUREATE IN CALIFORNIA: CURRENT CHALLENGES & FUTURE PROSPECTS Civil Rights Project/Proyecto Derechos Civiles <https://www.civilrightsproject.ucla.edu/research/college-access/underrepresented-students/the-baccalaureate-in-the-california-community-college-current-challenges-future-prospects/CA-CC-BA-report-070616.pdf>

only 15.2%; less than half of the statewide figure (15.2% vs. 31%). This formula of low education and high poverty is responsible for low employment rates and lack of regional economic resiliency².

Bakersfield College Guided Pathways System (GPS) will redesign institutional policies, practices, systems and culture with the goal of increasing student completion, while decreasing time and cost to completion through high touch, high tech strategies. Guided Pathways is built on four pillars:

1. **Clarifying educational pathways** for both Career Technical Pathways and Transfer Pathways.
2. **Getting students on the path** starts by getting 9th grade students to see college in their futures.
3. **Keeping students on the path** calls us to ensure that every precaution is taken to keep students on their educational pathway to degree completion.
4. **Ensuring learning** with a learning environment both in and out of the classroom to create adaptive learners who can communicate effectively, think critically, demonstrate competencies, and engage with their communities.

I. Clarifying the Path – Preparing students for college while in high school:

BC serves 41 feeder high schools; the Guided Pathways System works to include the following:

- 4th year High School Coursework – English and math alignment and requirements
- Multiple Measures – Providing High School students with credit for past work
- Dual Enrollment – An important access point for under-served students

II. Entering the Path

From a student's perspective, the 72 BC degree options are paralyzing. The meta-major work will enable faculty to do the necessary curricular work to:

- engage in the cross-discipline discussions to clarify the General Education courses needed in the programs and
- clarify the skills needed to align with upper division courses and eventual careers.

GPS guarantees a completion coaching team to help students complete their Ed plan by using career data to update that plan. Without a plan, excess units accrue as students search for direction, for instance, at BC students take an average 85 units to get a 60-unit degree, which represents 25 excess units per degree completer (remember this is not a large percentage of students). In 2014-15 this totaled \$1,048,800 in excess tuition at BC, potential crippling debt for students and wasted taxpayer dollars. When this impact is factored into the large number of students that never complete, this leaves students with: units, financial aid debt and no certificate, degree or transfer; the importance of pathway clarity becomes apparent. Historically California has not graduated adequate numbers of

² Bakersfield College has been tracking Educational Attainment and salaries for some years through the work and writing of Professor Nick Strobel (Astronomy), Professor Oliver Rosales (History), and through our Equity work.

degree completers further intensifying disproportionate impact, inequitable educational outcomes and social mobility³.

III. Staying on the path and completing college:

As students transition from high school to college, they report a large gap in their knowledge about expectations, resources for success and academic skills. Beginning Spring 2017 Summer Bridge will become the default option for all incoming first-year students. The GPS framework includes development of 10 meta majors for clarity and streamlining of instructional and curricular paths and eight affinity groups. Each meta-major and affinity group will be surrounded by a completion coaching community.

Technology like MyPath and Starfish⁴ will integrate degree planning and early alert advising of students. Campus Logic software will track student financial aid. AccuSQL, Alex, Plato, and Canvas will provide data on students' academic progress. The high-touch approach of these completion coaching communities combined with the power of high-tech data analytics to monitor progress and target student communication, will result in each of our 30,000 students being carefully advised on their individual path to degree completion.

Important information about pathways exists on the Presidents website⁵, on the official BC Guided Pathways website for AACC⁶, in the GPS article⁷ and at the Pathways Institute's professional development website⁸ (Additional information and visuals for GPS are in the appendix).

IV. Ensuring Learning:

Throughout their educational experience at Bakersfield College, students will benefit from a high quality educational environment, shaped by best practices and fueled by cutting edge technology and authentic learning. Leveraging professional development that integrates research-based teaching strategies with a variety of accessible tools, faculty will continue to refine their practice in the classroom, whether the "classroom" is on the Main BC Campus, Online, or elsewhere. Outside the classroom, the college provides a wide array of academic support services to aid students in their learning journey. These services are connected to the classroom through intentional integrations and collaboration between academic support personnel and faculty, as well as through our Starfish platform.

³ Gándara, P. and Cuellar, M. (July 2016) The BACCALAUREATE IN CALIFORNIA: CURRENT CHALLENGES & FUTURE

PROSPECTS Civil Rights Project/Proyecto Derechos Civiles <https://www.civilrightsproject.ucla.edu/research/college-access/underrepresented-students/the-baccalaureate-in-the-california-community-college-current-challenges-future-prospects/CA-CC-BA-report-070616.pdf>

⁴ CCCC Educational Portal Initiative (EPI) applications <https://cccedplan.org/about>

⁵ President's website <https://www.bakersfieldcollege.edu/president/aacc-guided-pathways> In addition

⁶ BC Guided Pathways AACC <https://www.bakersfieldcollege.edu/president/aacc-guided-pathways>

⁷ GPS article <https://committees.kccd.edu/sites/committees.kccd.edu/files/H.%20Pathways-Model%20NS.pdf>

⁸ BC Pathways Institute <https://www.bakersfieldcollege.edu/employees/professional-development/pathways-institutes>

External Scan Findings

Several broad trends characterize higher education policy; these trends are summarized in Appendix A.1 and include:

1. Accessing higher education⁹¹⁰
2. Increasing successful program completion¹¹
3. Doing what matters for the state economy¹²
4. Stretching the community college system to reach greater numbers of disadvantaged citizens.
5. Redesigning community colleges to provide more guided pathways for students.¹³

Seven industrial clusters were identified as economic drivers. An industry cluster has common needs for talent, technology, and infrastructure (see Appendix B.1). Kern is the leading petroleum production and processing county in California and is now the state's largest single wind energy source.¹⁴ The San Joaquin Valley accounts for 70 percent of the state's agriculture output. Appendix A.2 covers 36 years of average employment and unemployment and it is important to note that each year the Kern County unemployment rate has exceeded the state rate.

The Kern County Economic Development Corporation has targeted five industries to promote further economic development: (1) aerospace and defense; (2) energy and natural resources; (3) health care services; (4) transportation, logistics, and advanced manufacturing; and (5) value-added agriculture. Additional information about the targeted industries is found in Appendix B.2 55% of service area residents have high school diploma or less. Students who are the first generation in the family to attend college face a very daunting task, lacking familiarity with the higher education system and few role models to provide advice. These factors stand as impediments for a large share of prospective college students¹⁵.

Internal Scan Findings

From fall 2011 to fall 2016 the Full-time Equivalent Students (FTES) produced at the College increased by 1,390 FTES, an increase of 24%. Neighboring California community districts throughout the Central Valley, except for Fresno City College, experienced a decline in annual FTES after 2010-11(Appendix C.1 and trends by locations in C.2). The majority of students who enrolled fall 2012-2015 selected Bachelor's degree, either without or after completing an associate degree as their educational goal. 66% of those who attended are under 24 years of age; the group that has grown the most is recent high school graduates.

⁹ Mind the Gap: Delivering on California's Promise for Higher Education. California Competes, December 2015.

¹⁰ Johnson, Hans, et. al. Addressing California's Skills Gap. Public Policy Institute of California, April 2016

¹¹ California Community Colleges Student Success Task Force. Advancing Student Success in the California Community Colleges. January 2012

¹² California Community College System Board of Governors. Task Force on Workforce, Job Creation, and a Strong Economy: Report and Recommendations. November 2015

¹³ Bailey, Thomas R. et. al. Redesigning America's Community Colleges: A Clearer Path to Student Success. Harvard University Press, 2015.

¹⁴ California Partnership for the San Joaquin Valley. Regional Industry Cluster Analysis and Action Plan. September 2012. 16Johnson, Hans and Sengupta, Ria. Closing the Gap: Meeting California's Need for College Graduates. Public Policy Institute of California. April 2009.

¹⁵ California Community Colleges Chancellor's Office Data Mart; analysis by Cambridge West Partnership, LLC.

As of spring 2017 BC had twenty-seven Associate Degrees for Transfer (AD-T) and another three proposals submitted for approval. Some 334 courses were identified in those twenty-seven transfer degrees as required or named as restricted electives. These courses must be offered at least once in a two-year cycle. Most courses were identified in only one transfer degree program; however, a limited number of courses were identified in more.

An analysis of the instructional periods used in the fall 2015 schedule indicated that there were six primary instructional periods related to the common two-days-a-week scheduling pattern (starting before 4:30 pm). There were a number of classes that were scheduled at starting and ending times or day patterns conflicting with primary periods. Potential conflict may relate to differences in contact time, different units or combinations of lecture and laboratory modes of instruction. The tables in Appendix C.3 illustrate the fall 2015 term patterns and possible conflicts for classes scheduled to last the entire semester.

Scheduling classes at a large, complex institution such as Bakersfield College is a significant juggling act to balance facilities, faculty, weeks-duration, days, and time slots. It is particularly challenging to orchestrate coordinated time periods for classes with different numbers of contact hours and classes that run for different numbers of weeks.

One-fourth of the multi-day pattern of class meetings did not conform to the dominant instructional periods and 104 classes were scheduled to meet only one-day a week during the prime morning hours. These instructional patterns can create potential conflicts in the efficient use of instructional space and block students from enrolling in classes needed to accomplish educational goals in a timely manner. The general time of day when students attended and the units in which they enrolled are summarized in Appendix F.

The most popular meta-majors are Health Sciences; Science, Technology, Engineering, and Math; and Social and Behavioral Sciences and Human Services. The disaggregation of students by ethnicities across the meta-majors is found in Appendix C.4.

From academic years 2012-13 to 2014-15 there has been an increase in the numbers of degrees and certificates awarded to Asian, Hispanic, and students who declared two or more races as their identity. Because they constitute the majority of students at the College, the Hispanic group has received between 50% and 58% of the awards in each of those academic years. However, when the proportion of awards is compared to the proportion of students by ethnic group, the Hispanic student group is under represented. Additional details are in Appendix D.1.

Future issues to consider from the internal scan include:

- Analyze class start and end patterns if different from primary instructional periods to determine costs and benefits.
- Evaluate trend of increasing day classes (classes starting before 4:30 pm) at the expense of evening offerings from 2011 to 2015.
- Examine reasons why the majority of BC students attend part time (fewer than 12 units) to rule out institutional barriers, enrollment management issues or other unintended obstacles to completion.
- Analyze scheduling conflicts within pathways.

- Consider scheduling innovations such as Reg365 light of pathway needs to reduce time to completion

Institutional Effectiveness

The mission of the California Community College System has evolved and expanded over time in response to the changing needs of students, communities and the state. The Colleges provide:

- **Associate degrees and certificates** shown to increase earnings and enable students to move forward in their professional development
- **Transfer** education to public and private colleges and universities;
- **Basic skills and English language proficiency** for increasing numbers of students;
- **Economic and workforce development** to meet the ever-increasing demands of career-oriented young people, adult learners and incumbent workers; and
- With adequate funding, lifelong learning and educational opportunities for all Californians.

The California Community College vision presents the preferred future of the Colleges: California's Community Colleges provide upward social and economic mobility through a commitment to open access and student success by delivering high quality, affordable and comprehensive higher education.

This document will cover the missions of the California Community Colleges: Basic Skills and English Language Proficiency, Transfer, and Economic and Workforce Development -Career Technical Education (CTE) and BC's Rural Initiatives. BC data regarding the mission and strategic directions has been reported through the Renegade Scorecard.

Institutional Effectiveness Interventions

Work over the last three years focusing on increasing institutional effectiveness, while driven by a flurry of initiatives and funding sources, has been organized by the Guided Pathway Framework. A summary of that work is in the table below.

	Area of Focus	Summary of Work	Work Needed
Clarify Pathways	Pathways Clarification for Completion	DegreeWorks, SEP review, New Programs, Learning and Career Pathway Completion Teams	Train Faculty and Students in DegreeWorks Consider MyPATH Implement Coaching Teams
	Associate Degrees for Transfer (ADT) and C-ID work	From 3 to 27 ADTs From 68 to 164 C-ID courses	Continue to review and submit as templates and course updates occur Future ADT will require C-ID courses
	New Catalog and Website	Work on updating all programs, courses, prerequisites has occurred, new phase 1 catalog Spring 2017	Need Phase 1 Webpage Summer 2017 Phase 2 Catalog Fall 2017 Phase 2 Web Spring/Summer 2018

	Area of Focus	Summary of Work	Work Needed
Getting on the Path	Re-designed Matriculation	Occurs at the high school began with 8 now 41 or more	Coordination to get students into summer bridge Training for CAI
	Multiple Measures Placement	Gradual Implementation of Accuplacer, BC Multiple Measures, Adoption of Statewide measures	Implement Common Assessment Exam, Refine Multiple Measures automated and counselor review process, Finalize AP and other MMs
	Remedial Education and Accelerated Coursework	Pathways accelerated and reduced in levels in Math, English and Reading. Summer bridge successful implementation	Evaluation of various support services and success in courses Expansion of Summer Bridge as default
	Dual Enrollment	Increased from 4 high schools to 144 Sections, enrollment of 2528 283.67 FTES in spring 2017	Need to guarantee curricular alignment, organize courses better, design interactions with HS and BC faculty

	Area of Focus	Summary of Work	Work Needed
Staying on the Path	Student Success Lab	Rewrote curriculum to serve those testing below placement. Created personalized modules for all course levels for independent work.	Evaluate success and adjust needs by collaborating with faculty. Develop contextualized learning activities.
	Supplemental Instruction	SI began in Spring 2014 with 7 embedded SI leaders and has grown to nearly 100. Uses group study.	Continue to monitor and adjust for success. Determine organization, facilities and support.
	Tutoring	Has provided historical one-on-one support	Continue to evaluate and provide support.
	Writing Center	Grown in support, has full-time staff to manage. Expanded to Delano.	Expand role in General Education courses. Coordinate with pathways model.
	Extend the Class	Piloted with Math and English. Good success.	Consider expanding to General Education courses with low success rates.
	Math Lab	Redesigned curriculum, staffing increased and collaboration with ACDV	Consider other software options and evaluate current work and success. Consider move to noncredit.

	Area of Focus	Summary of Work	Work Needed
Ensuring Learning	Programs / Offerings	Several new programs developed	Continued review and exploration
	Career Benefit	Students experienced higher wages	Increased work with community/workforce
	Community Partnerships	Dual Enrollment, Kern Promise, Wonderful Academy	Increase in Partnerships in the Future

Basic Skills and English Language Proficiency

Connecting with Students Early and Often – School Relations and Outreach

In 2013 Bakersfield College began two significant institution-transforming strategies related to the second pillar of Guided Pathways:

- Outreach and School Relations department was created
- Equity and SSSP initiatives created both funding and data to be early adopters of multiple measures placement

The Outreach and School Relations Department works directly with more than 41 service-area high schools providing all core matriculation services (Orientation, Assessment, Counseling/ Advising and an Abbreviated Educational Plan) to seniors **at their high schools**. Strong partnerships have produced improvement in both quality and quantity of students who are fully matriculated prior to the start of the new academic year. Significantly, high school staff helps with each of the matriculation steps, train as assessment proctors and provide venues for this work. SSSP funding created the ability to hire more counselors and educational advisers. Completion of matriculation steps contributes to ultimate student success these factors produced a 14% FTES increase and a 13.3% in Headcount to 27,627 in 2015-16¹⁶.

¹⁶ CCCCO Datamart http://datamart.cccco.edu/Students/Student_Term_Annual_Count.aspx

Bakersfield College ¹⁸	Fall 2014 Service Received	Fall 2015 Service	Fall 2016 Service	Change Fall 2014-Fall 2016
Totals	22,488	34,855	37,114	65%
Academic/Progress Probation Services	348	887	1,039	199%
Counseling/Advisement Services	8,158	10,783	12,594	54%
Education Plan Services	4,837	6,600	6,552	35%
Initial Assessment Services Placement	1,743	2,312	2,163	24%
Initial Orientation Services	1,891	4,928	4,773	152%
Other Services	5,511	9,345	9,993	81%

Welcome Center

Once students come to the campus, the Welcome Center is the hub for all new and continuing students and visitors. It provides a one-stop location for information regarding Student Services, Admissions & Records, Counseling, Assessment, Financial Aid, and general questions. Campus Tours are conducted by Student Ambassadors.

Basic Skills Redesign 2014-2017

The 2017 developmental education at Bakersfield College does not resemble the coursework or success data of 2014 and data in the previous Educational Master Plan. BC re-engineered developmental education the way students are placed into coursework, the coursework delivery, and the support for students in basic skills education.

Placement and Coursework Innovations

In 2014 through the MIH (Making it Happen) initiative the academic development chair and colleagues redesigned ACDV B55 First-Year Student Success a half unit course that introduces BC’s academic, social, and physical environments and promotes personal development. Summer Bridge has grown from 3 sections and 95 students to 18 sections and 467 students; the goal is to have Summer Bridge the default option for all entering freshman.

Implementation of multiple measures for placement has morphed over the last three years and currently follows the placement patterns validated by the multiple measures workgroup at the CCCC. This has significantly shifted students into college level courses.

	Before 2013-14	Current
Transfer-Level Reading	60%	65%
English	29%	54%
Math Intermediate Algebra and	13%	40%
Transfer Math	Transfer Math 3%	29%

In 2016 multiple measures placement resulted in some students moving up one, two, three or four levels, which must lead to a question about the reliability of a single test as a measure. The additional innovation of accelerated coursework in Reading, English and Math saves additional time and money. Academic Development, English, and Math have redesigned nearly every pre-collegiate course offered through acceleration, compression or curricular redesign of levels. The English for Multilingual Students faculty members are developing two non-credit certificates. One is at the intermediate level; the other is at the advanced level.

Student Success in Remedial Education

Placing students in higher levels has an indelible effect on the basic skills pathway. An external analysis conducted to examine the overall basic skill pathway success by Dr. Peter Riley Bahr indicated that prior to 2013; the problem within basic skills was not course success but rather loss of students as they progressed through the levels. (See Peter Bahr report 2016). It should be noted that the success rate in transfer coursework has remained stable at 69% but that work includes 13,058 additional enrollments in 2015-16 over the number in 2013-14 and an additional 9120 successful course completions.¹⁷ Student success in remedial education and in completion of gateway math and English courses has steadily improved over the last 3 years.

Transfer

Transfer is a fundamental part of the Bakersfield College mission and the Pathways initiative. The college has worked hard to guarantee transfer through C_ID curriculum approval and development of ADT's or transferdegrees with a guarantee.

Associate Degrees for Transfer

The Bakersfield College faculty members have aggressively developed ADT's: 27 have been approved by the Chancellor's Office and 3 more are awaiting approval. In order to create AD-Ts within the 60 unit load, many departments had to re-write curriculum. ENGL B1A, MATH B22 (Statistics), and PSYC B5 (Behavioral Statistics), key gateway courses, were each decreased by a unit. Additionally, a statistics pathway for non-STEM majors has been introduced with promising success results taking students from Algebra I (one level below transfer) through college level statistics. Other general education courses such as Spanish have decreased units to facilitate completion. The number of students completing associate degrees for transfer has increased from 31 in 2012-13 to 422 in 2015-16. Additionally, the faculty members have scaled up the numbers of courses that qualify for a course identification number (C-ID) from 68 to 164 by 2016-17.

Science, Technology, Engineering and Math (STEM), and ASEM Transfer Initiatives

The College has moved on several fronts to promote student interest and success in the key STEM disciplines of biology, chemistry, physics, engineering, math, physical science, and computer science. In fall 2016 the College opened the new \$1.6 million Aera STEM Success Center supported by a \$500,000 donation from Aera Energy Corporation. Center staff members collaborate with the Math, Engineering, Science Achievement (MESA) program for first generation and economically disadvantaged students who are majoring in the STEM disciplines and seek to transfer.

¹⁷ CCCC Datamart Transfer outcomes http://datamart.cccco.edu/Outcomes/Course_Ret_Success.aspx

Collaboration with Project Lead the Way, KHSD, and CSUB

To further encourage prospective college students to consider STEM fields of study, the College has sponsored summer STEM camps for middle and high school age students in collaboration with Project Lead the Way.

Recently the College and CSUB science faculty members collaborated on an NSF grant to support the University's electrical power engineering program.

Pre-Law Transfer Pathway

One of 24 community colleges with an MOU to create a relationship with six California law schools: University of Southern California, University of San Francisco, Santa Clara University, Loyola Marymount University, U.C. Davis, and U.C. Irvine, BC has created a student club, pre-law society, and a pre-law advisory council comprised of 12 legal professionals in the Bakersfield and Delano area to help support the program.

Transfer Center and Articulation

The Transfer Center provides support for prospective transfer students through direct counseling, educational planning, application workshops, university on-site admission events, in-class presentations, the collaborative BC/CSUB Satellite Transfer Center, and multiple Transfer Day events throughout the year. A partnership agreement was signed with the California Health Sciences University to guarantee 10 seats every year for Bakersfield College graduates.

Several campuses of the University of California (Berkeley, UCLA, Davis, and Irvine) are using grant funds to identify and recruit students from rural community colleges such as Bakersfield College. One admissions representative from UCLA comes monthly to Bakersfield College. Once the program is established, students and counselors at the College will be taken on a field trip to UCLA.

The Next Three Years

The Pathways implementation has stimulated BC to conduct research on the transfer process to CSUs, which should be seamless as a result of the SB 1440 legislation. BC has begun a series of meetings with CSUB.

Kern Promise

In fall 2016 the College launched a pilot effort, the Bakersfield Renegade Promise, which is a commitment to help students complete their Associate Degree for Transfer (AD-T) within two instructional years through structured support and priority access to courses.

The College will expand to the Bakersfield Transfer Promise with the awarding of a \$750,000 grant from the California Community Colleges Chancellor's Office.

Future Science, Technology, Engineering, Math (STEM)

Faculty and instructional administrators are developing a pathway in engineering based on the State Engineering Model Curriculum. The associate degree will likely specify a core of engineering courses and a limited general education pattern. Mechanical engineering has been identified as the greatest current local need.

Science faculty members are exploring options to develop at least one new specialized science associate degree or certificate. Three showcase labs for biology, geology, and a 3D computational

computer lab have been planned for a new science building. Measure J includes renovations of the Math, Science, & Engineering building.

Transfer Work for the Future

- Collaboration with CSU
- Increase Hispanic rate of transfer
- Build connections with Historically Black Colleges and Universities (HBCUs)
- Develop opportunities with local Pharmacy University in Fresno
- Explore UC Pathways for alignment
- Continue to develop ADTs as needed

Career and Technical Education (CTE)

Bakersfield College has a distinguished CTE tradition of preparing students for immediate employment. The college has a system of reviewing relevant data to determine which programs to enhance, revitalize, or develop new programs. Factors in making decisions include program outcomes, core indicators, local, regional and state employment data and job market trends. The current focus is on building and enhancing programs that will provide a sustainable living wage for program graduates.

Regionally, Bakersfield College students earn more than half of the awards in radiologic technology, manufacturing, and EMS and also garner a high percentage of awards in architecture (71%), nutrition (75%), drafting (78%), and constructions crafts (89%). More than 40% of the BC skills builder students are in architecture, drafting, fire technology, and nutrition. Nearly all CTE program areas exceed the college's average success rate of 66% for instance: Nursing (89%); Health professions (89%); Human services (90% compared to 64% in the region); EMS (10 percentage points higher than the regional average)¹⁸.

The College's Career and Technical Education programs are organized into nine meta- majors that cover California's 15 industry sectors. Focusing on a seamless pathway that utilizes articulation, dual enrollment, and concurrent enrollment, the college and its partners are creating opportunities for high school students to earn college credit for certificates and degrees that lead to high wage employment.

Within the Guided Pathways Initiative, the CTE area is focusing on:

- Clarifying CTE academic pathways to prepare students for college while in high school: Strengthening the collaborative relationship with local high schools to facilitate successful dual enrollment and articulation activities.

¹⁸ Bakersfield College, State of the College 2016-17. Slide presentation January 2017.

- Helping student chose a path in college: Increased visibility of CTE programs during recruitment events with an emphasis on Career Advising and Orientation.
- Encouraging students to stay on the path and completing college: Increased interventions and targeted advising from CTE completion coaches.
- Promulgating effective learning: Continued development of an assessment culture communicating course, program and institutional assessment. CTE programs have been enhanced with categorical funding from Perkins, CTE Enhancement, CCPT I and II, C6, Strong Workforce, Baccalaureate startup funds, industry donations, and general funds commitments.

The Next Three Years

- **Agriculture, Nutrition, and Culinary:** The Plant Science ADT was approved March 2017 by the CCCCCO and two more ADT's in the agriculture are pending approval. Potential growth areas include agricultural education and pest control advisor certification. Nutrition and Culinary faculty members are exploring opportunities to expand the existing programs with a possible addition of hospitality.
- **Health Sciences:** The recently approved the Public Health Sciences AS-T degree recently won an innovation award. New programs include an AS degree in Health Information Technology, a community Health Care Worker/Patient Navigator COA, and an Athletic Trainer/Coaching COA under Kinesiology program. Future programs in may include medical lab technician and respiratory therapy.
- **Public Safety and Emergency Management:** The new Paramedic AS degree/Certificate of Achievement (COA) will serve community needs and the California Ambulance Association is interested in the College offering the paramedic program online. The paramedic certificate may link to the fire technology program providing greater employment opportunities for graduates.

The emergency medical responder academy provides instruction one level below EMT. The Bakersfield Police Department is returning the basic academy instruction to the College and potentially in-service training as well.

- **Industrial and Transportation Technology:** Bakersfield College is one of 15 CCCs in a pilot program to offer a baccalaureate degree; BC's baccalaureate is in Industrial Automation which focuses on electronics and computer technology and prepares students for management positions in industry sectors, including petroleum, agriculture and manufacturing. The Automotive and Construction programs are implementing major curricular redesigns to streamline pathways. New programs being developed include an AS degree/COAs in Occupational Safety and Risk Management, HVAC and Biomedical Electronics programs. Delano will expand welding, fabrication and electronics programs.
- **Arts, Humanities, and Design:** Both the American Sign Language and Spanish are developing interpreter certificates. COAs were approved for Commercial Music and

Graphic Design.

- **Business:** The Apple Corporation has expressed an interest in having a retail certificate developed for that industry. The logistics program will also be reinstated.
- **Science, Technology, Engineering, and Math (STEM):** Within the STEM pathway, the college expects to develop a Cyber Security program to address information security assurance. It will be aligned with industry certificates (A+, Net+, security +, and server +).
- **Social and Behavior Sciences and Human Services:** The College is developing a substance abuse certificate of achievement program and will seek accreditation from the California Association for Alcohol and Drug Educators (CAADE).
- **Job Placement and Career Counseling:** The College is planning comprehensive job placement center to integrate on-campus job placement and off- campus employment through work experience, internships, and employment. This center will also provide support services for students, industry training on resume building, interview techniques, and workplace soft skills.

Rural Development Initiatives

The College has launched a series of rural initiatives primarily career technical education but also some general education coursework, which has been targeted to the rural, isolated communities in the service area. This covers the city

These initiatives are also part of a Guided Pathways System (GPS) the College is implementing that requires a comprehensive change both at the College and in the community. Intensive and substantive work has been done with community partners, local high schools, industries, and four-year institutions. A well-connected network of organizations has a shared vision for economic development, workforce preparation, and education. (see Appendix R.1)

Promoting a College-Going Culture

To this end, BC is collaborating with community partners to equip more of the residents with marketable skills through a college education. BC has also expanded its Inmate Education Program.

Technology

The technology planning for Bakersfield College can be summarized into four major categories of work:

Technology to Support Guided Pathways – The implementation of the college-wide Guided Pathways System will rely heavily upon multiple technology platforms to facilitate the work of the completion coaching communities. Starfish will simplify and automate the work of student communication, tracking and degree planning. The college will rely heavily upon data analytics to guide and evaluate the new processes and structures. Participation in the state Educational Planning

Initiative (EPI) will provide connectivity and resources for students throughout their educational journey. eLumen will be used to integrate and simplify the work of curriculum, assessment, and program review.

Academic Technology Department – The newly-formed Academic Technology Department, under the Dean of Academic Technology, provides functional leadership in the areas of instructional design/instructional technology, distance education and professional development. Additionally, the Center for Professional Development has been re-launched as a state-of-the-art lab with video/lecture capture abilities and a faculty maker space.

Student Learning Technology and Distance Education – Bakersfield College is pursuing multiple initiatives directly related to student learning and distance education. The campus wide rollout of Canvas is complete, but work continues with the goal of increased usage and integration. The college is engaging with statewide initiatives including the Online Education Initiative and the Open Educational Resources project. Online orientations and our online tutoring services are continually improved for both quality and scalability.

Strategic Technology Goals – The College is currently pursuing several strategic goals related to technology. These include increased capacity and offerings through our distance education modalities, as well as a stronger relationship between institutional data and online offerings and stronger success and retention for our students in distance education classes and programs. The campus is also aggressively pursuing wireless coverage to support growing numbers of mobile users.

Conclusion

The executive summary gives a brief overview of the Educational Master Plan and the appendices provide the details.