

# Bakersfield College

## Program Review – Annual Update

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Attachments (place a checkmark beside the forms listed below that are attached):

- [Faculty Request Form](#)       [Classified Request Form](#)       [Budget Change Request Form](#)  
 [ISIT Form](#)       [M & O Form](#)       [Best Practices Form \(Required\)](#)  
 Other: \_\_\_\_\_

### **I. Program Information:**

Program Name: **Fire Technology**

Program Type:       Instructional       Non-Instructional

Program Mission Statement:

The mission of the Bakersfield College Fire Technology [Program](#) is to meet the needs of our diverse community and ensure student success by offering quality comprehensive educational opportunities. The Fire Technology program meets the primary mission of the college by offering academic and vocational education to prepare men and women for careers in fire service and safety occupations. The Fire Technology program embraces the Departmental Total Effectiveness Plan, which includes the following goals:

- Faculty will ensure that the mission and goals of the programs are congruent with those of the college.
- Faculty, students, and administrators in the Fire Technology program will participate as appropriate in the governance committees of the program and the college.
- Faculty will enable the achievement of the mission, philosophy, and goals of the Fire Technology program by maintaining expertise in areas of teaching, practice, and service.
- The programs will foster a teaching and learning environment that is conducive to student academic and/or career achievement.
- The Fire Technology program curriculum will facilitate student achievement of the program outcomes along with the acquisition of knowledge, skills, values, and competencies for safe practice.

Program Description: The Fire technology Program has been in place at Bakersfield College since 1956. For fifty seven years the program has been preparing students for careers in the fire service. The Fire Technology Program offers pre-service, in-service and professional development classes in the field of fire technology. We prepare non-firefighters for a career in the fire service with our core classes and our Firefighter I Academy, which is accredited through the Office of the State Fire Marshal. We provide in service training to members of local fire departments through Instructional Service Agreements. Many of our professional development classes are either degree applicable or can be used as elective units, or tied to a state fire marshal certificate program.

The Fire Technology Program is designed to prepare students for employment in the Fire Science industry. The Associate of Art, Associate in Science degree and Certificate of Achievement in Fire Technology and [Wildland Wild land](#) Firefighting provide students and employers with certifiable standards of technical career proficiency. The curriculum provides for training skills and techniques as follows: 1. Working knowledge and understanding of fire positions (i.e.,

firefighter, fire inspector, fire investigator, supervisors and managers, 2. Workplace safety and orientation, 3. Work ethic, attitudes, principles, responsibility, discipline and initiative, 4. Technical language, vocabulary, equipment, materials, modes of operation, and a broad background in the mental and physical skills necessary to operate in the world of fighting.

Degrees and Certificates: List the degrees and/or Certificates of Achievement awarded by the program, if applicable.  
Fire Technology A.A. Degree and Wildland Firefighting A.S. Degree = 27, Last Year Degrees = 17  
Fire Technology Certificate of Achievement = 13, Last Year Certificates = 9.

## **II. Program Assessment:**

- a. How did your outcomes assessment results inform your program planning?  
**The outcomes assessment did inform us of students who may not completely understand some of the SLO's. This information will give us a chance to make improvements or changes and re-examine the data next year.**
- b. How did your outcomes assessment results inform your resource requests this year?  
**The student learning outcome results do indicate that the program would benefit from the ISIT request of the Bullex Flashover Simulator in the following [Fire Bfire-b-1, 3, 4, 5, and 6](#) courses.**
- c. Note any significant changes in your program's strengths since last year.  
**When we complete our programs state fire marshal re accreditation in spring of 2014 our program will receive national recognition. Last spring semester I completed and submitted the re accreditation application, paid our fee's and awaiting a site visit.**
- d. Note any significant changes in your program's weaknesses since last year.  
**We are recovering from budget cuts over the last three years, and ghosting of classes. Enrollments are coming back up this year, from past years.**
- e. If applicable, describe any unplanned events that impacted your program.  
**No notable unplanned events have occurred. We do have a department assistant III person who will be retiring at the end of the spring semester. It will be a very arduous task to try and find a replacement for her. She has played a very big part in the success of the program and will be hard to replace.**

## **III. Technology and Facilities Analysis**

- a. Has your program received new or repurposed technology in this cycle?
  - i. If yes, how have you assessed the outcome of the use of that technology and its effectiveness as it relates to student outcomes? **No**
  - ii. If no, what technology could play a contributing factor in future student success and outcomes for your program? How would you evaluate the use of this technology?  
  
**-The purchase of a flashover simulator would be one way to increase future success. It is very difficult to try to help students visualize the concept of flashover and backdraft. The simulator made by Bullex demonstrates these conditions, which need to be present in order for these two**

[phenomenon'sphenomenons'](#) to occur. It then safely allows the student to visualize their presence; it then allows the instructor to demonstrate visually effective ways to prevent their occurrence.

iii. How might other areas use this technology?

This would be of great benefit to the fire academies as well. Helping those students understand backdraft and flashover [phenomenon'sphenomenon](#). How to safely recognize the condition as it begins to develop, and then what to do to prevent or eliminate a flashover or backdraft condition. The Safety Committee could use it in a safety class to college employees to help them understand why they should never re-enter a burning classroom to retrieve something they may have forgotten.

(NOTE: Technology requests can be made by filling out the [ISIT Request form](#).)

b. Has your area received any facilities maintenance, repair or updating in this cycle? If yes, how has the outcome contributed to student success? **None**

(NOTE: Facilities and M&O requests can be submitted by completing the [M&O request form](#))

#### **IV. Trend Data Analysis:**

Discuss any significant changes in data trends over the last year using data provided by Institutional Research. Metrics may include the following:

a. **Changes in student demographics (gender, age and ethnicity)**

Last year = 7% increase in females over previous year. Our age groups showed little change over the previous year. Last year we had an increase in African American of 6%, and Hispanic/Latino increase of 35% over previous year.

b. **Changes in enrollment (headcount, sections, course enrollment and productivity)**

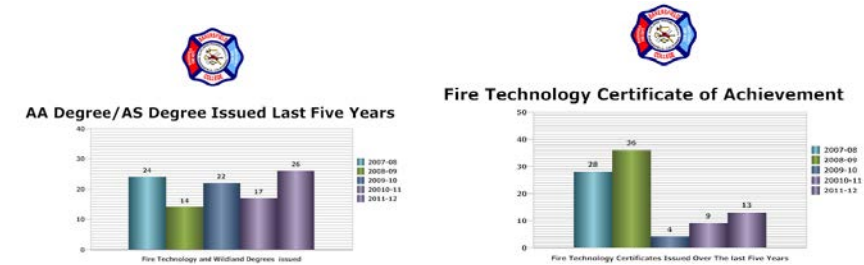
Last year the program experienced a 3% increase in unduplicated headcount over a -3% the previous year. With a total of 1,707 unduplicated students in the program. FTES Program Productivity = total 467.5 last year, compared to 434.6 the previous year.

c. **Success and retention for face-to-face, as well as online/distance courses**

FTF Success rate of 98.4%, Retention rate of 99.5% / FTF College wide Retention rate of 84.3%, Retention rate of 67.6%

DE Success rate of 46.4%, Retention rate of 72.7% / DE College wide Success rate of 48.8%, Retention rate of 72.5%

**d. Degrees and certificates awarded (five-year trend data for each degree and/or certificate awarded)**



**e. Other program-specific data (please specify or attach)**

The Fire Technology Program is up for re-accreditation with the California State Fire Marshal Training Division sometime during the coming spring semester. The SFM is going through accreditation its self; soon the State Fire Marshal will be [Pro Board](#) and IFSAC accredited. [Pro Board, Board](#) is an established and internationally recognized means of acknowledging professional achievement in the fire service and related fields. The accreditation of organizations that certify uniform members of public fire departments, both career and volunteer, is the primary goal. However, other ~~organizations~~ [organizations](#) with fire protection interests may also be considered for participation. Accreditation is generally provided at the State or Provincial level to the empowered certifying authority of that jurisdiction. [IFSAC accreditation, accreditation](#) is the International Fire Service Accreditation Congress. This organization accredits both public fire service certification programs and higher education fire-related degree programs.

This will add much more prestige and professionalism to our fire technology program here at Bakersfield College, and benefit the students who take our courses. For example students who successfully complete our Firefighter I & II academy will be recognized and accepted by other fire departments nationwide. It will also allow us to accept and provide college credit for military firefighter training received by our service men and women.

**V. Progress on Program Goals:**

List the program's goals from the previous Program Review. For each goal, please discuss progress and changes. If the program is addressing more than two (2) goals, please duplicate this section.

**Previously Established Goal 1: (Curriculum Revisions)**  
 Progress on Goal: *Revise and review more curriculum.*

Completed: 6/1/2013 (Date)       Revised: \_\_\_\_\_ (Date)

Comments on Goal 1: I was able to complete the revision of 22 classes, and the addition of one new driver operator fire B-51L class last college fiscal year. This is an increase of two more classes than the goal last year that I set of

twenty classes. I am going to attempt completing a revision of fifty classes this year.

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**Previously Established Goal 2:** (Obtain approval for 28 new Bakersfield College Certificates, which we currently issue as State Fire Marshal Certificates. This would be an increase of more than 825 certificates for the following year after approval.

Progress on Goal:

Completed: \_\_\_\_\_ (Date)                       Revised:   9/23/13   (Date)

Comments on Goal 2:

This goal was a bit ambitious; four new certificates would be more doable. In addition to our fire officer, and chief officer certificates, I have completed the application for an EMT skills cert., a firefighter 1, and firefighter 2 academy cert., a ~~wildland~~Wildland firefighting certificate, and a driver operator certificate. Every year the program issues approximately 825 State Fire Marshal Certificates. This would be a considerable increase over previous years for the program.

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**Previously Established Goal 3:** (Obtain approval for four articulation agreements with [CalStateCal State](#) LA, Calpoly, Kern High School District, and a reaccreditation with the State Fire Marshal.

Progress on Goal:

Completed: \_\_\_\_\_ (Date)                       Revised:   9/23/13   (Date)

Comments on Goal 3:

The articulation and accreditation applications were submitted last fiscal year, year; the program is still awaiting their approval.

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**New Goal 4:** (*Improve retention and success rates*).

Progress on Goal:

Completed: \_\_\_\_\_ (Date)  Revised: \_\_\_\_\_ (Date)

Comments on Goal 4:

My plan is to improve the success and retention rates by developing a workshop for instructors. The workshop will

cover administration policies on dropping students, articulating how SLO's are implemented, in syllabus, examinations, class material, and purchase of the Fire Simulator.

**VI. ~~Curricular~~. Curricular Review (Instructional Programs only):**

- a. List each of the courses offered within the discipline's academic program in the first column, using one row per course. Place an **X** in the appropriate column to indicate when the course is scheduled for review.

Course	2013-2014 (2019-2020)	2014-2015 (2020-2021)	2015-2016 (2021-2022)	2016-2017 (2022-2023)	2017-2018 (2023-2024)	2018-2019 (2024-2025)
<b>Fire B-1</b>				<b>X</b>		
<b>Fire B-2</b>				<b>X</b>		
<b>Fire B-3</b>					<b>X</b>	
<b>Fire B-4</b>					<b>X</b>	
<b>Fire B-5</b>					<b>X</b>	
<b>Fire B-6</b>					<b>X</b>	
<b>Fire B-7</b>				<b>X</b>		
<b>Fire B25a</b>					<b>X</b>	
<b>Fire B25b</b>					<b>X</b>	
<b>Fire B25c</b>					<b>X</b>	
<b>Fire B25d</b>					<b>X</b>	
<b>Fire B25e</b>					<b>X</b>	
<b>Fire B72h</b>						<b>X</b>

- b. **List courses that are proposed for addition.**  
 Fire Prevention for engine company officers, this is a state fire marshal course addition. A Fire B130 in service course focused at an industry partner we contract with (USFS Sequoia).
- c. **List courses that are proposed for deletion.**  
 No classes at this time.
- d. **List any changes the program has made to online/hybrid/distance education courses.**  
 The last two Fire Technology core classes (Fire B-3 and B-7) were approved, and will be offered in the spring 2014, the fire technology AA Degree is now completely online.
- e. **Provide an update on the program's transition to adopting a Transfer Model Curriculum (AA-T or AS-T), if applicable.**  
 I have submitted for articulation between BC and [CalStateCal State](#) LA, BC and CalPoly, and between Kern Community High School District ROP program and Bakersfield College.

**VII. Conclusions and Findings:**

Present any conclusions and findings about the program.

In conclusion, many of my findings have indicated that the program, which consists of one fulltime faculty member and one fulltime clerical [person](#), is not enough to adequately operate the program. I have been involved with the program part time nine years, and now five years fulltime. Our Fire Technology program here at Bakersfield College is as large if not larger than other [college's](#). But other colleges invest more in staffing. Dr. Jackie Fisher current President of Antelope Valley [College](#) was the last fulltime Fire Technology Coordinator for Bakersfield College. Since then we have had Ray Soto, Frank Ramos, and now [myself](#). Bakersfield College is one of the top three FTES producing college's in the state.

**FTES produced by California College's with Fire Technology Programs**

College	Credit FTES
Allan Hancock College	393.12
American River College	391.937142
Antelope Valley College	86.31238
Barstow College	1.748571
Bakersfield College	467.523141
Butte College	258.226666
Chabot College	101.965714
College of the Canyons	1322.180952
College of the Desert	21.462857
College of the Sequoias	78.23619
Cosumnes River College	82.314285
Crafton Hills College	208.88
Fresno City College	191.03238
Imperial Valley College	28.260952
Lake Tahoe Community College	67.354285
Las Positas College	76.923809
Los Angeles Valley College	106.908571
Los Medanos College	67.35619
Mendocino College	5.613333
San Diego Miramar College	346.321904
Modesto Junior College	159.864761
Mt. San Antonio College	274.348571
Mt. San Jacinto College	45
Porterville College	13.123809
Rio Hondo College	507.04
Riverside Community College	321.495238
City College of San Francisco	78.620952
San Joaquin Delta College	37.887619
College of San Mateo	113.470476
Santa Ana College	2453.594285
Santa Rosa Junior College	197.518095
Shasta College	173.230476

- Denotes college's producing more than 200 FTES
- Denotes Bakersfield College in top three

The program services 1,707 unduplicated students, 79 sections, produces 467.5 FTES, 7.2 FTEF, overall retention rate of 93.9%, overall success rate of 87.4%, 26 degrees and 13 certificates, issues over 1,400 State Fire Marshal certificates, oversee and manage two different contracts (Olive Drive Fire Training and the Forest Service), independent contractors, manages four different budgets, and payroll for 72 Adjuncts and Professional Experts.

This is all being accomplished by one fulltime faculty member @ 175 days, and one fulltime department assistant.