

Mathematics Department

1. If you are a chair, read aloud the 3-5 sentence abstract you have created of your department's program review.

In order to meet the needs of our students, our primary mission is to offer academic and vocational education in lower division mathematics and to provide education and training that contribute to continuous work force improvement. Our secondary mission is to provide developmental instruction in pre-algebra, elementary and intermediate algebra and to support students with drop-in tutoring.

The Math Department is committed to developing student numeracy at Bakersfield College. We strive to expand their ability to think critically and solve problems. It is our goal that our students will be able to think critically, abstractly, logically, algorithmically to evaluate and solve problems and that they will also be able to communicate in the language of mathematics.

We currently offer an AS-T degree in mathematics.

2. What are the things that your department really does/did well over the past 3-4 years?

1) Strength: Working with the Academic Development Department to design a fast track AC-Dev 78-50 program. We met with AC DEV and designed an accelerated class. AC DEV is hoping to try out the class this year.

2) Strength: Trembley Lab Our most up to date classroom. Due to STEM grant funding we were able to put technology into most of our classrooms. We now have nine high tech classrooms.

3) Strength: Calculator rental program. In Fall 2013 we have rented 160 calculators at the main campus and another 50 at the Delano campus.

Strength: High School Outreach Program. Our program expanded with the addition of the English and Physical Science Departments joining us on our high school visits. The Mathematics department has also attended College Night and will attend the Go and Grow Resource Fair.

4) Strength: North Kern Math Summit. This summit was successfully held for the second year.

5) Strength: We are examining different ways to streamline the math pathways to a transfer level class.

6) Strength: We continue to offer multiple types of instruction in mathematics and are going to try compressed classes in the Spring.

Additional Strengths:

- More math faculty are using supplemental learning.
- BC has been chosen to be a pilot college for the common assessment with participation by BC math faculty on the design and implementation of the new assessment.
- BC faculty look for new ways to use technology in the math classroom. For example, one faculty member is training this summer to learn how to incorporate 3-D models into her calculus class.

3. What are the factors in the Bakersfield Community (job market, socio-economic climate, educational outlook) that will impact your department/program?

The socio-economic climate is on the upswing, so more people can afford to take classes to get new training for the job market. That means, more math classes will be needed for a growing enrollment.

K-12 is in the middle of adopting/implementing the new Common Core. It is yet to be seen how these changes will affect the math preparedness level of our incoming students.

The new Engineering Program at CSUB should increase the demand for our Calculus level classes.

4. How can your department/program best meet the needs of the community?

We can best meet the needs of the community by looking for new and innovative ways to promote student success, such as having compressed and accelerated math classes and by offering enough mathematics classes to meet student demand. Also possible putting a full time presence at Paramount Academy might help them with their Agriculture Degree program.

In addition, we can work with CSUB to prepare our STEM students for their new engineering program.

5. How can the college as a whole, with your program as an important part of that whole, meet the needs of the community best? By working together with the high schools and CSUB (especially with administrators and counselors) to make sure we are on the same page in our expectations for and of our students. Our High School Outreach program, our old Articulation Day and the North Kern Math Summit could be the models for how to begin achieve this.

6. What are the most important ways Bakersfield College and your program impact positive change in our service area?

Most importantly the college as a whole needs a clear idea of the big picture to make sure we are all working towards the same goals.

As a department, our High School Outreach Program explains to students what will be expected of them when they arrive here. Our calculator rental program provides low income students with access to an expensive piece of equipment. We strive to make our classes available to the public by offering them at off campus locations such as the Delano Center and Arvin High School, and by offering a full mathematics program at night.