

Math Department Position Justification Spring 2014

Nearly every student at Cañada
College takes at least one math class!!

Main Points

- Demand for math classes is large and growing
(25% of all students in a given semester)
- 6 FT and 15PT teach ~60 sections.
- Abundance of grant and state funded projects place demands on FT faculty.
- Common Core implementation will trigger re-design of math sequence here.

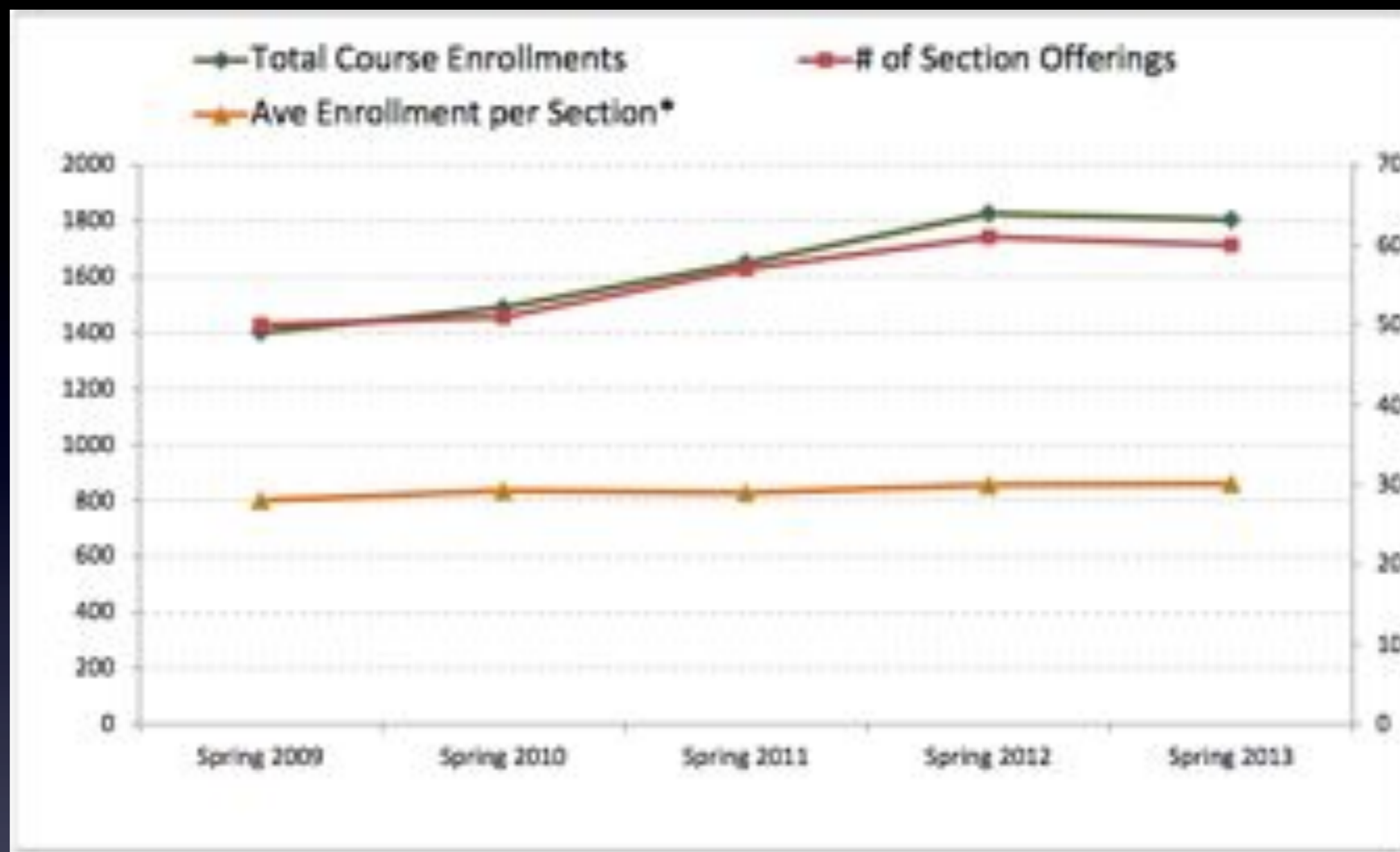


Table 2. Department Efficiency

Department	Metric	Term				
		Spring 2009	Spring 2010	Spring 2011	Spring 2012	Spring 2013
MATH	WSCH	7526	8020	8493	7857	7598
	FTES	250.9	267.3	283.1	261.9	253.3
	FTE	11.27	11.13	12.53	13.87	14.11
	Load*	668	720	678	567	539

*Color Coding: Peach shaded cells contain values at least 10% lower than the college average; blue shaded cells at least 10% above the college average.

Over the past 5 years the number of students whose goal is to transfer has gone from 1034 in 2008/09 to 1772 in 2011/12, an increase of 71% !

$$1772 - 1034 / 1034 = 738 / 1034 = 0.7197$$

Department	Metric	Academic Year				
		2007/08	2008/09	2009/10	2010/11	2011/12
MATH	Transfer (w/ or w/o Degree)	1034	1190	1371	1578	1772
	Career Dev (Degree, Certificate, License)	211	263	342	391	431
	Educational Development	261	200	341	357	313
	4 Yr College Student attending Cañada	350	342	337	271	184
	Undecided on Goal	141	192	219	275	270
	% Transfer (w/ or w/o Degree)	51%	53%	52%	55%	60%
	% Career Dev (Degree, Certificate, License)	10%	12%	13%	14%	14%
	% Educational Development	13%	9%	13%	12%	11%
	% 4 Yr College Student attending Cañada	17%	15%	13%	9%	6%
	% Undecided on Goal	7%	9%	8%	10%	9%

Data Definitions: All counts & percentages reflect the student's primary educational goal as indicated on their first application.

Note 1: Percentages do not sum to 100% because the Transfer category also includes some degree seeking students.

81% placed below college level '10-'12.

Placements January 2010 to December 2012				
MATH				
TOTAL TESTS TAKEN	PLACEMENT AND PERCENTAGES			
MATH 2010	MATH 811	MATH 110	MATH 120	MATH 125, 130, 140, 200, and 241 Transfer Classes
2033	732	622	304	261
	36.01%	30.60%	14.95%	12.84%

Full Time vs. Part Time

- We have 6 full time math instructors: Rich Follansbee, Michael Hoffman, Denise Hum, Evan Innerst, Ray Lapuz and Po Tong (Fall 2013)
- Full timers teach 36% of units and 31% of the classes
- There are at least 14 part-time Math instructors in a given semester:
- PT instructors include Adam Fahey, Teresa Zemla, Hongyan Meng, Tai Nguyen, Radu Toma, Judy Choy, Vera Klimkovsky, Rama Akkaraju, Alpona Banerjee, Elena Ivanova, Kazumi Tsuchiyose, David Monares, Danielle Ta, Bob Hanhan,
- In the learning center we have instructional aide and many student tutors.
- Growing SI program.

Math Department Activities

On-line classes are offered in elementary algebra, intermediate algebra, statistics, and math for allied health. The first on-line math classes were offered in 1998



Math 818

Math Department Activities

Collaboration with other departments such as ESL, Astronomy, and Counseling.



Math Department Activities

Honors sections have been offered consistently since it started.

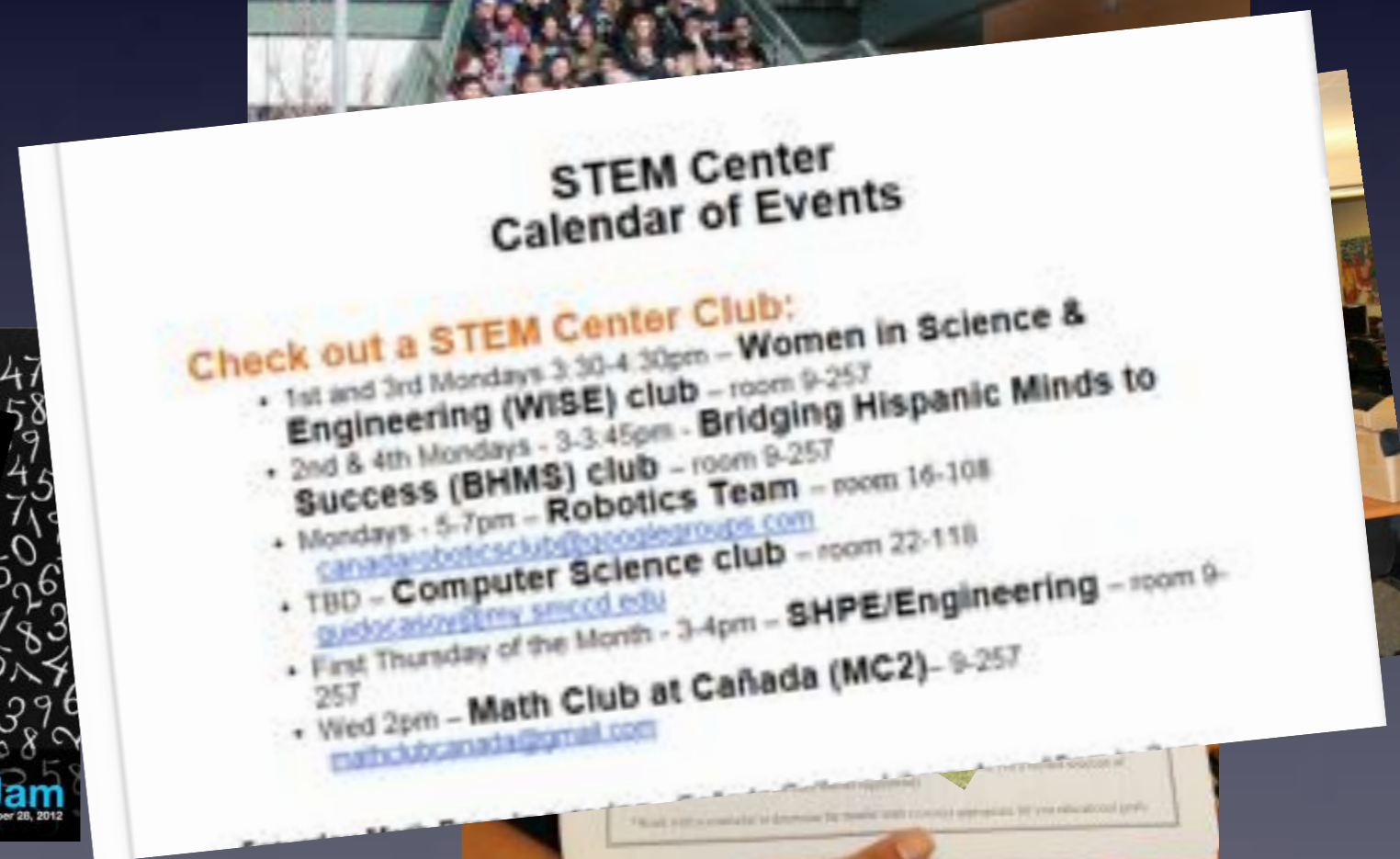


Math 253: Calculus III
Math 270: Linear Alg.
Math 275: Diff. Eqn.

Math Department Activities

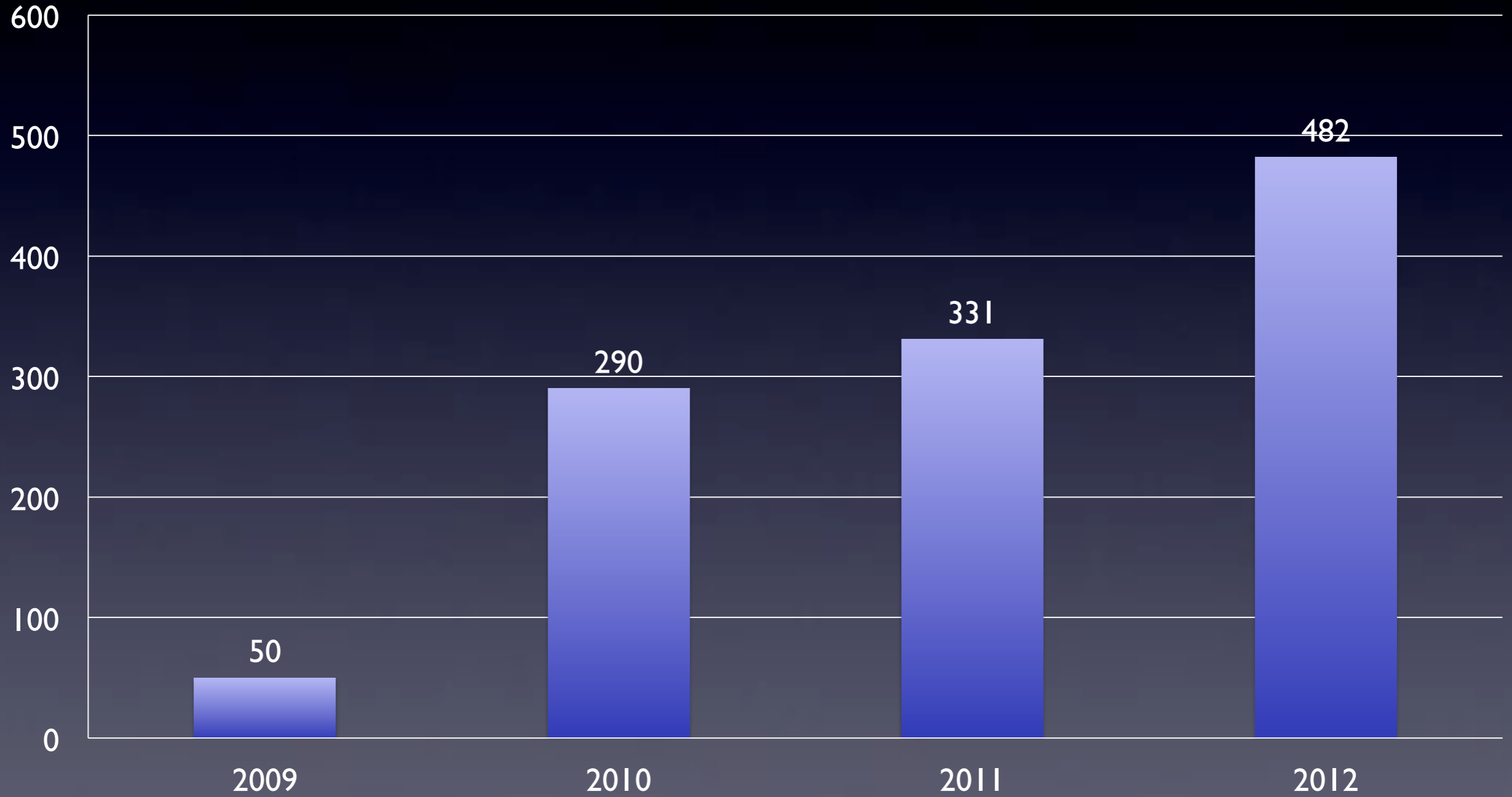
Math Jam has been going strong and growing since 2009.

STEM Center



Growth

Math Jam Participants



Math Department Activities

Reorganizing Trig and Precalculus
sequence (NSF Grants)

NASA curriculum.

Math Jam Curriculum



Math Department Activities

Basic Skills:

- ESL collaboration
- Reading Apprenticeship
- Alignment w/Common Core



Factoring Jigsaw
Break it up and Break it down. MATH JAM! Summer 2011

Can, the day it will be in effect four days

0 1 2 3 4

9

Name: _____

▲: Quadratic Trinomials Pick two problems to demonstrate to your home group. How could one identify type of problem in the future?

1. Factor completely and Check answers by multiplying!

(i) $x^2 + 5x - 14$

(ii) $2x^2 + 11x + 15$

The twenty day signs and thirteen numbers of the Tzolkin

The Calendar Round and How It Worked

seating of Cumku (the last day of Kayab)

Math Department Activities

Accelerated STEM Paths:

algebra/trig/precalculus



Math Department Activities

Acceleration Initiative:
Path to Statistics



Math Department Activities

Math Club.



Department Initiatives

In recent years our focus has been on improving our success in the basic skills courses and we will continue to try and improve our results.

- Mastery level testing
- Increased student contact hours
- In-class tutoring (SI)

We are constantly trying to improve retention and success of the STEM students

- STEM Center and MathJam
- Acceleration

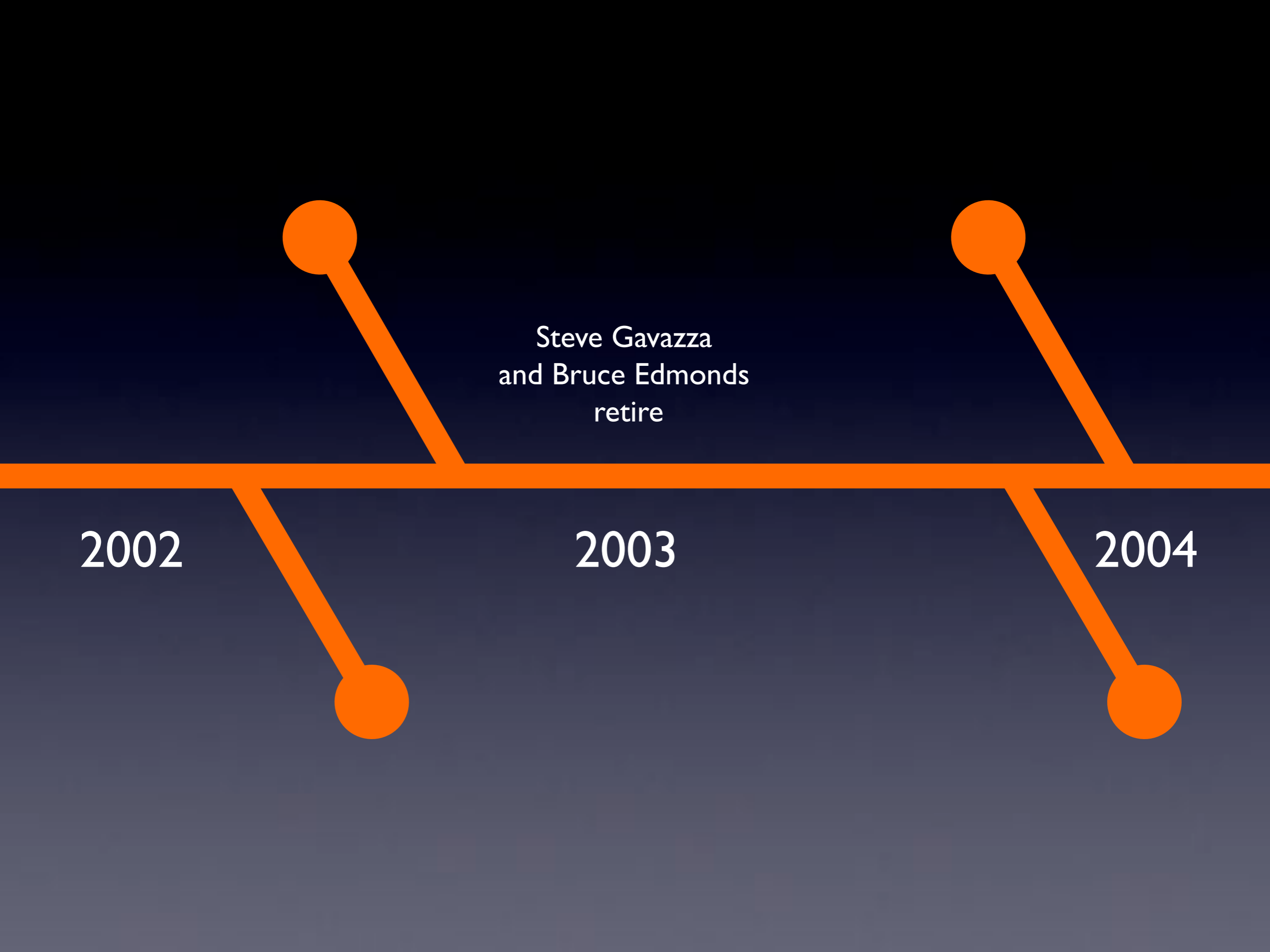
Most of our other transfer students take statistics

- Path to Statistics

- To be successful and carry out all of these initiatives, we need additional full-time faculty
- Without a new hire, we will continue to pursue these goals, but at a significantly slower pace

Evolution of the Math Dept





2005

2006

2007

Rich Anderson
retires
May 2006

Judy Liteky
retires
May 2007

Denise Hum
Hired
Aug 2007



AS degree now requires MATH 120

Position justification presented to
CPC Fall 2010

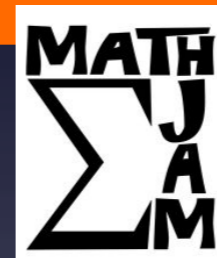
Jack Preston retires
May 2008

Spring 2008 is last
semester Dr. Enriquez was
available to teach math

MathJam! Begins in 2009

2008

2009



2010

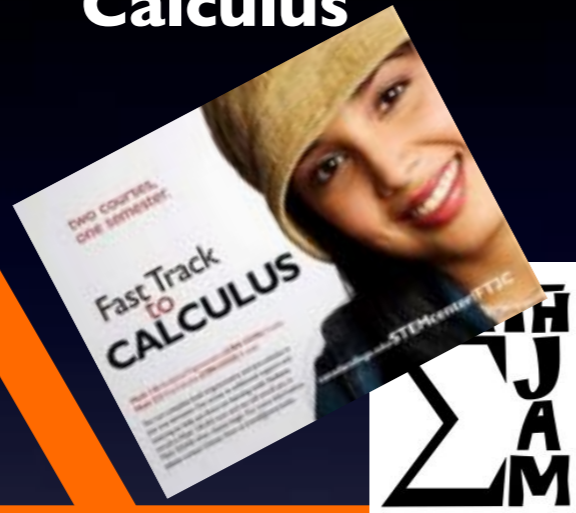
Position justification presented to
CPC **denied** Fall 2010

31% of the classes are taught by full time faculty

Path to Statistics Initiative



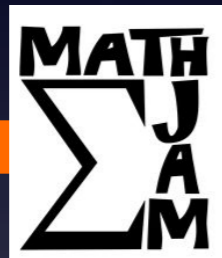
Fast Track to Calculus



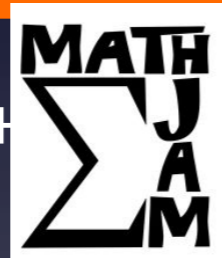
Chuck Iverson Retires
Dec 2012



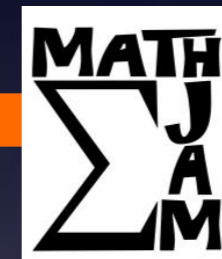
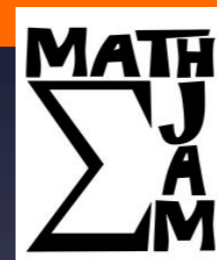
2011



Michael Hoffman Hired
Feb 2011



2012



2013



Po Tong Hired
Fall 2013



Evan Innerst
Rich Follansbee
Ray Lapuz
Denise Hum
Michael Hoffman
Po Tong

6 Full Time Faculty

2014

???
Hired
2014

2015

2016

