Friday March 28, 2014

8:30 Joan Ferrini-Mundy
   - PCAST report - Should engineers teach calculus
   - UTeach

IU STEM Education

9:30 - 11:30
   - F. O'Neill Mihler, ASC
   - Lilly Alert, BC

10:50 - 11:30
   Slugs on Stem
   - Gretchen Andreasen
   - Nandini Bhatta Chary
   - Debra Lewis

A public university run like a liberal arts college

Gives a big picture broad description of the program (pure math, computational, and post-education - tracks). CS has a 4-1 &
post-BA credentialing structure.

Nandini talked about ACE - focusing on increasing diversity of STEM graduates.
UCSC cont.

One interesting program gets undergrad students an opportunity to do teaching activities at the university.

CAL Teach adds more in-depth advising for students.

Creating a community of future teachers at the university and in the local schools.

11:35 - 12:15 CA Teacher Prep and The Common Core
Eric Hsu, Judy Kjøsh

- Math can make sense - deep curriculum
- Algorithms can be understood.

CA vs CC Standards
- CSSF is more aligned in Theme 6 to CCSS.

In California for someone to be a teacher, they essentially need a full math major
- They've created "Teacher Fellows" program to give a community to those math majors.

Modeling - for mathematicians - if an answer has units - that's modeling. Let's make that better and richer.
We don't want students just to know about math, we want students to figure out math.

\[
N = \frac{a^2 - b^2}{(a-b)(a+b)}
\]

\[
2a = \frac{4k+2}{2} (2k+1)
\]

\[
2 \cdot 13 = (2) (13)
\]

\[
2(2k+1)
\]

\[
\frac{17}{14} \quad 18
\]

\[
2 \quad 7 \quad 34 \quad 29 \quad 1
\]