



Getting Ready for College Mathematics: Conversations with Math Professors



SAN DIEGO STATE
UNIVERSITY

Free Interactive Sessions for Middle School and High School Math Teachers!

Sponsored by the San Diego Math Project

Four Sessions this Spring!

Thursday, February 4, 4-6 pm - Register online [here](#)

Topic: Math Using the Standards for Mathematical Practice to Plan and Implement Novel and Engaging Lessons

Speakers: Dr. Janet Bowers, SDSU Department of Mathematics and Statistics, and Dr. Katrine Czajkowski, Lead Curriculum Specialist, Sweetwater Union High School District

Description: This session will feature stories from three teachers who have developed innovative ideas that engage students in some of the Standards for Mathematical Practice. Bowers will discuss some activities that have been used in college pre-calculus to support conversations and sense making (MP 1 and 3). Robotics teacher Paul Armendariz will talk about his work integrating computational thinking and programming into his ninth grade math class (MP 4 & 5). RDR teacher Casey Jones, who teaches Compacted Math 7, will talk about her work using portfolios for encouraging multiple ways of thinking and perseverance (MP 1).

Wednesday, April 20, 4-6 pm - Register online [here](#)

Topic: Expected Value and Decision Making

Speakers: Dr. John Elwin, SDSU Department of Mathematics and Statistics, and Esmeralda Orozco, Sweetwater Union High School District - Noyce Teacher

Description: A series of modules as resources for teachers in grades 6-12 that support the teaching of statistics and probability has been developed by the California Math Project (CMP) in partnership with the California Mathematics Council (CMC). We will focus on those modules that emphasize the concept of “expected value” and relate the concept to the decision making process. The χ^2 statistic occurs in year three of the new common core probability and statistics standards. The statistic is often used to determine if one should reject the so-called “null hypothesis” or the conjecture that nothing has changed. This is a topic of fundamental importance in statistical analysis.

Thursday, March 10, 4-6 pm - Register online [here](#)

Topic: Representing and Interpreting Data on Two Variables

Speakers: Dr. Susan Nickerson, SDSU Department of Mathematics and Statistics, and Casey Hawthorne, middle school and high school teacher for 15 years, Ph.D. candidate at SDSU

Description: With the new CCSS-M, there is much probability and statistics work in secondary grades. Consistent with the standards, we will place emphasis on modeling real-life data. We will focus primarily on standards related to: Summarize, represent, and interpret data on two categorical and quantitative variables. We will discuss teaching an understanding of how to fit a function to data (with emphasis on linear, quadratic, or exponential) and using the functions to solve problems in the context of the data. Technology is important in order to generate plots, regression functions, and correlation coefficients. This focus is also one of three critical areas in Grade 8 mathematics, though at this grade, fitting the model and assessing its fit to the data are done informally.

Thursday, May 19, 4-6 pm - Register online [here](#)

Topic: Discourse in Teaching Mathematics

Speakers: Dr. Janet Bowers, SDSU Department of Mathematics and Statistics, Dr. Katrine Czajkowski, Lead Curriculum Specialist, Sweetwater Union High School District

Description: In this workshop, we will examine productive patterns of discourse between a teacher and student. This discussion will be guided by Bowers, Czajkowski, and SUHI teacher Essie Orozco. We will view a few videos of animated characters (a cartoon teacher interacting with a hypothetical 7th grade student) and identify areas where the conversations (and underlying thinking) CVH C-STEM IMI with Computing/ involved higher order cognitive demand (MP 6, 7, and 8). We will discuss the pros and cons of this approach. If time permits, we will use the character generation tool to create video-based scenarios to share.



Space is limited—register today!

Where?

Sweetwater High School

2900 Highland Avenue, National City, CA 91950. Room #151

- Refreshments provided & **Free** Parking, details to follow after registration -

Questions? Email Dr. Nadine Bezuk at nbezuk@mail.sdsu.edu