



NEED MORE HIGHLY QUALIFIED MATH TEACHERS?

LET US HELP!

Teachers College of San Joaquin offers a Mathematics Instructional Added Authorization (MIAA) Program

The teacher who earns a Mathematics Instructional Added Authorization (MIAA) will complete advanced preparation and fieldwork in both mathematics content and the pedagogy above and beyond what is required for the multiple subject teaching credential. Dependent on the candidates' prerequisite mathematics content mastery, they will be authorized to teach mathematics Kindergarten through Pre-Algebra, or Kindergarten through Algebra One in a departmentalized setting.

Reduced cost to participants if districts send four or more teachers!

TODAY'S REALITY:
HQ math teachers < hiring needs

OUR GOAL:
produce HQ math teachers = hiring needs

Questions?

Contact Dr. Sylvia Turner at
(209) 953-2119, syturner@sjcoe.net or
visit our website: teacherscollegesj.edu

View the MIAA Coursework on back



Teachers College
of San Joaquin

MIAA Coursework (13 Units)

MIAA310 Teacher Action Research (1)

MIAA candidates' Demonstration of Advanced Practices and knowledge regarding the challenges of developing mathematics literacy among California's diverse student population will be evidenced in their Teacher Action Research through their specialized mathematical knowledge for teaching and thinking as well as their pedagogical knowledge and practices for teaching mathematics. The candidates will gather evidence from each grade span and locus of each course included in the TCSI MIAA program that will serve as proof of their expertise. Lessons, student work, and reflections will also be included from the candidates' fieldwork lesson studies. The final research will be submitted in a format ready for publication, supported by a portfolio of evidence from the MIAA fieldwork that is embedded within course expectations, as well as the lesson studies. The candidates' study is presented to program instructors and peers upon completion of the program.

MIAA320 Mathematical Discourse (1)

Mathematical Discourse focuses on the challenges of developing mathematics literacy among California's diverse student population and developing strategies for teachers that cultivate and advance positive attitudes among their students toward mathematics. The course is designed to attend to the specialized vocabulary embedded within mathematics and build understanding of effective pedagogical practices that enable teachers to facilitate meaningful discourse about mathematics, as well as, encourage and maintain the engagement of all learners. Content also includes how to analyze K-A1 students' questions, how to develop questions that promote critical thinking, and strategies that maintain high levels of cognitive demand throughout lessons.

MIAA330 Mathematics Assessment (1)

Understanding what K-A1 students know about mathematics and the implications to instruction is the locus of the course, Mathematics Assessment. A variety of assessment types are explored and developed with particular attention to error analysis, learning trajectories, language assessments, formative, and summative (site-based and California mathematics standards based) assessments. All discussions and assignments surrounding the varied assessments include the implications to instruction and how to help students use their results to improve their own understanding of mathematics. Teachers work together to determine what K-A1 students' demonstrations of understanding, fluency, or proficiency in mathematics look like and what type of assessment(s) are appropriate. Included in the coursework are techniques for communicating progress to parents, colleagues, and other appropriate service providers. This course prepares students for the course Equity in Mathematics: Intervention, Accommodation, and Differentiation.

MIAA candidate's demonstration of their ability to address the complex interplay of mathematics content and pedagogy for effective teaching for each grade span is the purpose of their capstone project.

MIAA340 Equity in Mathematics: Intervention, Accommodation, and Differentiation (2)

Building directly from the information in the course, Mathematics Assessment, the expectations of the coursework in Equity in Mathematics: Intervention, Accommodation, and Differentiation require that the results of K-A1 students' assessments inform MIAA candidates' evaluation, modification, design, and implementation of interventions, accommodations, and differentiation based on California's Common Core State Standards for Mathematics. MIAA teacher teams will design and implement targeted instruction appropriate for each grade span that promotes all students' equitable access to learn high-level mathematics.

MIAA350 Mathematics Instruction: Content, Representations, and Theories (3)

Implications to instruction based on the rigorous skills, concepts, and ways of thinking that are essential to students' success and engagement in doing mathematics provide the framework for Mathematics Instruction: Content, Representations, and Theories. The coursework is meant to increase the mathematical understanding of both the MIAA candidate and K-A1 students. Maintaining the collaborative philosophy of the program, participating teachers are challenged to ensure that everyone in their class has a shared understanding of what the mathematics means, as well as the proper sequencing and scaffolding of the content. This course prepares MIAA candidates for the capstone course, Designing Mathematics Instruction.

MIAA360/370 Designing Mathematics Instruction and Fieldwork (5)

With attention to the California Common Core State Standards (CCCSS) for Mathematics and building on the knowledge gained within the previous courses, the MIAA candidates collaborate with peers (pre-service, novice, and experienced) through co-planning of instructional units and co-teaching to improve student learning and practice in mathematics described in the CCCSS. Participants learn to design effective mathematics lessons for each grade span (K-3, 4-8, A1) and to plan and implement lessons specified within their units of mathematics content/instruction. All planning attends to the mathematics content as well as the developmental and cultural needs of the diverse student population of California. The



San Joaquin County Office of Education
James A. Mousalimas, County Superintendent of Schools