

Math/Science Teachers and Their Students Summer Institute 2018

Confronting Common Core Challenges

Course #MA180966; Section #286855

Led by Sister Alice Hess, I.M.H., Ph.D.

Monday through Thursday, July 9-12

Kailua High School, Room TB-1

8:30 a.m. - 12:30 p.m.

The Janet C. Swift Scholarship Fund, in partnership with Kailua High School, offers the Summer 2018 Workshop to middle/secondary school and community college teachers of mathematics/science who want an invigorating professional experience for themselves that will in turn enrich their students' learning. This four-day program addresses Common Core Standards through pedagogical modeling by a master teacher and intensive use of current technology in the form of the graphing calculator.

The Challenge

Of the three Key Shifts in mathematics that the Common Core calls for, the most challenging for teachers and students is the third: **Rigor**, to “pursue conceptual understanding, procedural skills and fluency, and application with equal intensity” (2015 Common Core State Standard Initiative).

In addition, the Standards for Mathematical Practice identify eight competencies that students should attain and that teachers need to enable. Two of the most significant of these are “Model with mathematics” and “Use appropriate tools strategically.”

(See poster at http://standardstoolkit.k12.hi.us/wp-content/uploads/2012/11/Poster_Math_Practices_final_resized.pdf)

These Standards for Mathematical Practice are different from content standards. They call for teachers to design and implement “meaningful instruction that promotes reasoning and sense-making, self-efficacy, and an appreciation for the utility and beauty of mathematics” (Hawaii Dept. of Education). Teachers need to supplement their existing competencies with experiences in modeling and using appropriate tools if they are to provide such meaningful instruction.

The Workshop

Participants will experience challenging activities that focus on:

- * Teaching mathematics in the context of problem solving;
- * Appropriate use of technology in teaching and learning Pre-Algebra, Algebra, Geometry, Pre-Calculus, Statistics and Science;
- * Incorporation of inference, probability and data analysis across the mathematics curriculum;
- * Use of carefully chosen problems to lead students to higher level thinking.

Class size is limited to 20 participants. Space permitting, high school teachers are encouraged to bring along, at no additional cost, one or two highly motivated students who have successfully completed Algebra II.

To reserve a space, a \$200 deposit is required for teachers (\$100 for pre-service teachers in training), payable to the Janet C. Swift Scholarship Fund. Upon active completion of the entire workshop, teacher participants will be refunded half of their registration fee and pre-service teachers will receive a full refund. Register by mailing the enclosed form and your check. Bring your own lunch and snacks. For additional information contact Winona Oato at wzaneato16@gmail.com or Joy Nishida at jwnishida@gmail.com (808-371-8849).

Registration Form
Summer 2018 Workshop for
Mathematics and Science Teachers: Confronting Common Core Challenges
July 9 - 12, 2018
Kailua High School TC Portable

Registration Fee: \$200 for inservice teachers, \$100 for pre-service teachers in training, and no charge for high school students. Upon completion of the entire workshop, teacher participants will be refunded half of their registration fee and pre-service teachers will receive a full refund. Make checks payable to the Janet C. Swift Scholarship Fund. Mail this completed form and your deposit by June 13, 2018 to:

The Janet C. Swift Scholarship Fund
Attn.: Winona Oato
P.O. Box 602
Kailua, HI 96734

If you do not receive an email confirming your registration within a week, please contact Winona Oato at wzaneato16@gmail.com or Joy Nishida at jwnishida@gmail.com or (808) 371-8849.

I am interested in earning 3 PD credits. ___ Yes or ___ No

I am a ___math teacher ___science teacher ___pre-service teacher in training ___h.s. student

My TI-84 graphing calculator abilities: ___ beginner ___ intermediate ___ advanced

Name _____

Address _____

City, State, ZIP _____

Phone _____ School _____

Courses that you will teach in the fall: _____

E-mail _____

I understand that, in order to qualify for half or complete refund of my registration fee, I must attend and actively participate in every session of this four-day workshop.

Signature: _____ Print name: _____

Instructor Partial Vita: **Sister Alice Hess** has taught secondary mathematics for more than 45 years, currently at Archbishop Ryan High School in Philadelphia. A national Presidential Awardee, Tandy Technology Scholar, and two-time Mary Dolciani Scholarship recipient, she has published numerous articles in professional journals and has made presentations nationwide on subjects ranging from algebra to calculus. She is a certified National Teachers Teaching with Technology instructor, an AP Statistics Exam reader and College Board consultant. Sister Alice was chosen by *USA Today* in 2003 as one of the top 20 educators in the nation, received the Siemens Award for Excellence in Teaching Advanced Placement Mathematics, designated a U.S. Department of Education 2008 American Star of Teaching, and named the 2014 Outstanding Mathematics Teacher by the Pennsylvania Society of Engineers.