Wyoming Department of Education

Jim Rose, Interim Director
2300 Capitol Avenue, 2nd Floor Hathaway
Cheyenne WY 82002
Phone: 307-777-7675 Fax: 307-777-6234 Website: edu.wyoming.gov

MEMORANDUM NO. 2013-012

TO: School District Superintendents
Curriculum Directors
Math Coaches and Instructional Facilitators
Principals
Math Teachers (secondary level)

FROM: Laurie Hernandez, Supervisor of Standards and Early Childhood
Educational Consultant, Math
Standards, Learning, and Accountability Division

DATE: February 19, 2013

SUBJECT: University of Wyoming 2013 Summer Mathematics Institute

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The University of Wyoming is sponsoring the *2013 Summer Mathematics Institute: A Venture into Complex-Valued Functions*, which will be held on the University of Wyoming Campus in Laramie, from Monday, June 17 – Friday, June 28, 2013, from 9:00 a.m. – noon daily.

Applicants must have three years experience teaching mathematics in high school or junior high/middle school. Wyoming teachers may apply for the institute by completing and submitting the Electronic Application Form, found at the link below, by March 29, 2013. **This year numbers are limited, so enroll early and definitely plan to attend if you enroll.** Applicants will be notified of their status the first week of April. Participants will receive a scholarship that covers tuition and fees for two hours of graduate credit. If you have any difficulty registering, please e-mail John Spitler at spitler@uwyo.edu.

http://www.uwyo.edu/math/opportunities%20for%20k-20%20teachers/summer%20mathematics%20institute.html

A description from the above link follows: *Have you ever wondered about extending what you were exposed to in your college calculus classes to functions that input and output complex numbers? Why might this be mathematically important? What might we be able to learn about real-valued functions after this study?*

The 2013 Summer Mathematics Institute will focus on functions of one complex variable. Topics will include the algebra and geometry of complex numbers, functions of one complex variable, elementary functions, limits, continuity and differentiation.

Differentiability leads to the Cauchy theorem, integral theorems, power series, residue theory and applications to integration theory. We will be reviewing relevant concepts covered in traditional Calculus I and II courses that impact our exploration of complex-valued functions of a complex-valued variable. As with the 2012 Institute, the course will take advantage of Maple, a well known computer algebra system, to handle required mathematical manipulations and related graphical analyses, freeing us to explore and understand the concepts involved instead of the rigors of the calculations.

LAH:dr