Mathematics & Science Education Center

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**SUMMER 2011 Recap and SUMMER 2012 Outlook**

Continuing state budget problems, the MSEC, with help from others, offered a number of math and science professional development offerings throughout summer 2011 that attracted large audiences. With funding for professional development almost nonexistent in school systems, teachers look for opportunities such as those offered in math and science by the Center. There was no cost to participants or school systems for any of the workshops or institutes offered during the summer. This was the first time that the Math Education Leadership Training (MELT) program had been offered without cost. There were six courses offered in the MELT program, all emphasizing a common core approach and all offered for either graduate or license renewal credit.

Elementary, middle and high school teachers participated in a variety of science programs during the summer. Lengths of programs varied from a two-day Virtual World Technology Conference to a three-week middle school institute in Science and Mathematics Integration for Leadership and Enhanced Teaching (SMILE). The three-year NSF-funded SMILE program has one year left and will conclude with a one-week program next summer. The program has helped teachers learn how to best use technologically-based tools to integrate teaching and learning with inquiry with mathematical problem solving. Further details of Project SMILE, including names of the project team and participants, are available in the spring 2010 newsletter available on the project’s website, melt.appstate.edu. SMILE provided a three-week-long science workshop for grades 5-8 teachers, a three-day meteorology workshop for middle and high school teachers that was supported by a NASA North Carolina Space Grant, and a two-week professional development experience at the Appalachian Institute for Science and Math Education in Boone, N.C. This was the first time that the Math Education Leadership Training (MELT) program had been offered without cost. There were six courses offered in the MELT program, all emphasizing a common core approach and all offered for either graduate or license renewal credit.

Family Math Nights and Family Science Nights in elementary and middle schools involve students and their parents exploring together interesting facets of mathematics and science. Bill and Birgitta McGalliard conduct the Family Math Nights; Judy Sink and Wendy Smith conduct the Family Science Nights. Also popular are presentations for grades 3-6 classes on rocks, minerals, North Carolina geology, the Blackbeard shipwreck, geo-archaeological project or other geology topics by Jack Calahan. The MSEC is pleased to offer these programs at no cost to the schools. Contact Ms. Vickie Isaacs at isaacsve@appstate.edu for further information on these or other programs.

The Mathematics and Science Education Center jointly sponsored with the Department of Mathematical Sciences the fourteenth annual Math Camp for rising sixth through twelfth graders in summer 2011. New this past summer was an ASU Math Camp at Discovery Place in Charlotte in addition to the on-campus Math Camp. We are pleased to be a joint sponsor of this program that continues to draw large numbers of students year after year.

Appalachian Mathematics Partnership

Faculty members from the Department of Mathematical Sciences and from the Department of Curriculum and Instruction are pleased to announce the receipt of a Mathematics and Science Partnership Grant to support the Appalachian Mathematics Partnership (AMP). Dr. Tracie Salinas of the Department of Mathematical Sciences is the project director. Other members of the project team are Drs. Debbie Crocker and Katie Mawhinney of Mathematics and Sciences and Dr. Kathleen Lynch-Davis of Curriculum and Instruction. Master Teacher Mike Verkaik of Michigan is also on the team. This project assists regional schools in improving student achievement in mathematics by achieving their visions of inquiry-oriented mathematics in the classroom in grades 8-12. AMP provides teachers with an immersion experience in an inquiry-oriented classroom complemented by experience with the Common Core State Standards, all while delving into rich mathematics content. Appalachian State University serves as the Higher Education partner of the project, and the Avery County School System serves as the project’s fiscal agent. Additional partners include Alleghany County Schools, Ashe County Schools, Burke County Schools, Caldwell County Schools, Watauga County Schools, Wilkes County Schools, Crossnore School, Inc., the ASU Mathematics and Science Education Center, the Appalachian Public School Partnership, and the Department of Mathematical Sciences. The Mathematics and Science Education Center is pleased to be one of the partners in this endeavor.

**North Carolina Science Festival**

As mentioned in the last newsletter, the North Carolina Science Festival will now be in the spring, April 13-29, rather than in the fall as it was before. The feeling is that having the Festival in the spring better complements the K-12 Math Fairs, and will better accommodate a school year calendar. More information will be in the spring newsletter and on our website as it becomes available. You may also get information by visiting www.ncsciencefestival.org.

**NCCTM Math Fairs**

The North Carolina Council of Teachers of Mathematics (NCCTM) sponsors three Regional Math Fairs. Winners from the three Regional Fairs are invited to participate in the state Math Fair. The winners of the NCCTM State Math Fair for 2011 may be found at ncctm.org/math_fair.cfm. This year, the Western Region Math Fair is March 31, 2012 at Pembroke Student Union on the campus of Appalachian State University in Boone, N.C. Last year’s winners of the Western Region Math Fair were posted in the spring 2011 newsletter, which may be accessed on the MSEC website. The NCCTM State Math Fair will be Friday, May 4 at the North Carolina School of Science and Mathematics in Durham, N.C.

Start working with your students on their projects for the Western Region Math Fair. For more information on the math fairs, go to the NCCTM web site, ncctm.org, and click on Math Fairs on the left of the screen. New information on this year’s fairs and registration forms will be posted.

**MSEC Programs for K-12 Students**

The MSEC is always pleased to arrange math or science programs for visiting students. Especially popular with visiting school groups have been science presentations by Jeff Goodman and Leslie Bradbury. Most of these programs take place during the academic year, but programs for summer visitors are also possible.

**Outlook**

NCCTM ANNUAL MATHEMATICS CONFERENCE

This year’s State Mathematics Conference will be on October 17-19 in the Sheraton Hotel in Greensboro. The theme is “Strengthening Your Core Understanding: Mathematical Practices and Mathematical Content.” There will be many informative sessions and workshops on a wide variety of topics for teachers and other school personnel at all levels. The keynote speaker will be Dr. Jere Confrey; and the featured speakers will include Greg Tang, Jeanne Jorgenson, and Amy Scrinzi. With the implementation of the Common Core State Standards (CCSS) less than a year away, the program for this year’s conference will include many informative sessions on the CCSS. The sessions will include content in the Common Core State Standards and ideas for implementing the Standards for Mathematical Practice. This will be a wonderful opportunity for teachers and administrators to educate themselves on this new curriculum and the Standards for Mathematical Practice. To register for the conference, go to NCCTM.org.

The 2011 Leadership Seminar will be held at the Koury Convention Center in Greensboro. The theme will be “Change in the MELT Program” Dr. Doug Jones resigned his position as Distinguished Professor of Mathematics Education and Director of the Mathematics Education Leadership Training (MELT) program this summer and has left Appalachian State. Dr. Debbie Crocker is the Interim Director of the MELT program this year. The Department of Mathematics Sciences will conduct a national search to fill the vacant position during the 2011-2012 academic year. Plans for MELT offerings in the summer of 2012 are in process now. Tentative plans will be posted on the MELT website, melt.appstate.edu, by late October or early November. Check the website to make your plans to participate next summer as we all implement the Common Core State Standards for Mathematics in North Carolina. Feel free to contact Dr. Debbie Crocker at crockerda@appstate.edu if you have questions.

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