Mathematics and Science Education Center
APPALACHIAN STATE UNIVERSITY

Mathematics Education Leadership Training (MELT) Program

Under the guidance of its new Director, Michael Bossé, the 2014 MELT Program offered twelve Summer Institute courses that emphasized the Common Core State Standards for Mathematics (CCSSM). These included Math Ed Technology, Probability & Statistics, Algebra in the Common Core, Math 1, 2, and 3 of the CCSSM, K-5 Algebra, Grades 6-8 Algebra, K-5 Geometry, 6-8 Geometry, Common Core Math 1-3, Geometry, and Building Mathematical Thinkers through Assessment and Inquiry. This was the greatest number of Summer Institutes offered through MELT. The MELT Program continues to give significant consideration to the political and educational movements within the state in order to best meet the needs of teachers in the state.

In addition to the MELT Summer Institutes, MELT has successfully held fall and spring workshops to provide graduate coursework for students. MELT has also redesigned a wiki space for MELT participant resources and a MELT FaceBook page to encourage mathematics education leadership. Thus, MELT is evolving in a number of dimensions to better meet the needs of K-12 teachers in the local and extended region.

MELT is now looking at participant evaluations, communicating with K-12 and university faculty, planning for this year’s meeting of its Board of Advisors, and communicating with school administrators in order to complete plans for next year’s offerings.

MELT wishes to capitalize on, and build upon, a number of successes: two years of increase in participation in Summer Institutes and the number of Summer Institutes offered; the continued support and collaboration with the Mathematics and Science Education Center, student participation in workshops, and the increase in enthusiasm among faculty and participants. The Mathematics and Science Education Center looks forward to continuing its long collaboration with and support of MELT to help make the program the best that it can be.

NOTES FROM THE DIRECTOR

My thanks to everyone who contributed to and helped proofread the newsletter. If you have ideas for articles in math and science education that should be considered for inclusion in future newsletters, please let me know.

The MSEC is always pleased to arrange math and science presentations for visiting schools and to visit schools with family math and science nights or other programs in math or science during the day (see the section of the newsletter on Programs for K-12 Students). Bill and Birgitta McGalliard continue to present family math nights and Jack Callahan does a variety of programs in geology. Judy Sink and Lou Moore for many years have done family science nights, but are not able to do this. We are trying to identify other science educators who can take on this program. Also popular are presentations for Grades K-3 on rocks, minerals, North Carolina geology, the Blackbeard shipwreck, geo-archaeology project or other geology topics by geologist Jack Callahan. 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.

Phil Johnson

DATES TO REMEMBER

Science Seminars 2014: Sept. 18, 25; Oct. 2, 9, 23; Nov. 13; and 2015: Apr. 16, 23
October 29, 2014: NCCTM Leadership Seminar, Greensboro, NC
October 30-31, 2014: NCCTM State Mathematics Conference, Greensboro, NC
November 6-7, 2014: NCSTA Annual Professional Development Institute, Winston Salem, NC
December 16, 2014: Region 7 Science Fair, ASU
January 31, 2015: Deadline for SYM Applications

PROGRAMES 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, Leslie Bradbury and Rachel Wilson. We welcome the increasing number of requests for math presentations and have several math educators who give interesting, informative and entertaining presentations. Most of these programs take place during the academic year, but programs for summer visitors are also possible.

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 Lou Moore for many years have conducted the Family Science Nights. But are no longer able to do this; we are trying to identify other science educators who can take on this program. Also popular are presentations for Grades 3-9 on rocks, minerals, North Carolina geology, the Blackbeard shipwreck, geo-archaeology project or other geology topics by geologist Jack Callahan. 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.

MSEC Newsletter

Mathematics Education Leadership Training (MELT) Program

Under the guidance of its new Director, Michael Bossé, the 2014 MELT Program offered twelve Summer Institute courses that emphasized the Common Core State Standards for Mathematics (CCSSM). These included Math Ed Technology, Probability & Statistics, Algebra in the Common Core, Math 1, 2, and 3 of the CCSSM, K-5 Algebra, Grades 6-8 Algebra, K-5 Geometry, 6-8 Geometry, Common Core Math 1-3, Geometry, and Building Mathematical Thinkers through Assessment and Inquiry. This was the greatest number of Summer Institutes offered through MELT. The MELT Program continues to give significant consideration to the political and educational movements within the state in order to best meet the needs of teachers in the state.

In addition to the MELT Summer Institutes, MELT has successfully held fall and spring workshops to provide graduate coursework for students. MELT has also redesigned a wiki space for MELT participant resources and a MELT FaceBook page to encourage mathematics education leadership. Thus, MELT is evolving in a number of dimensions to better meet the needs of K-12 teachers in the local and extended region.

MELT is now looking at participant evaluations, communicating with K-12 and university faculty, planning for this year’s meeting of its Board of Advisors, and communicating with school administrators in order to complete plans for next year’s offerings.

MELT wishes to capitalize on, and build upon, a number of successes: two years of increase in participation in Summer Institutes and the number of Summer Institutes offered; the continued support and collaboration with the Mathematics and Science Education Center, student participation in workshops, and the increase in enthusiasm among faculty and participants. The Mathematics and Science Education Center looks forward to continuing its long collaboration with and support of MELT to help make the program the best that it can be.

Mathematics and Science Education Center

2014-2015 Science Seminars

The important subject of sustainability will be addressed in this year’s Science and Sustainability Thursday night science seminars. The seminars are open to everyone, are free, and offer license renewal credits (0.2 per seminar) to teachers. The fall seminars will be in room 124B in the new Reich College of Education Building from 6:00-8:00 p.m. with refreshments at 6:00. Parking on campus is free after 5:00 p.m. with the most convenient parking for the seminars being in the Library Parking Deck near the College of Education Building. The spring seminars are part of the North Carolina Science Festival that will take place during April 10-26, 2015. The spring seminars will be in the same building in room 124C and will also be on the same time schedule, 6:00-8:00 p.m. The schedule for the 2014-2015 series is:

October 9, 2014: Laura Englund (Sustainable Development), “In Hot Water: Challenges for Sustaining the Health and Natural Services of Watershed Systems”
April 16, 2015: Brett Taubman (Chemistry), “Fermentation, the Original Sustainable Practice”
MSEC website always has the most up-to-date information on high school list serves by sending your e-mail address and which add your name to one or more of our elementary, middle or can always read both current and earlier newsletters at www. in the early spring. You may also get information by visiting www. information will be in the spring newsletter and on our website Ms. Tracey Tardiff will again coordinate campus events for the ASU’s contest, please check the Math divisions. The contest is scheduled for Tuesday, March 31, 2015. again host a North Carolina Council of Teachers of Mathematics cooperation with the Math and Science Education Center will available sometime after mid-October at http://ncsefreg7.sfiab. The registration fee is $10.00 per entry. Mr. Coleman Bailey, Region 7 are Alexander, Alleghany, Ashe, Avery, Burke, Caldwell, Catawba, Davie, Iredell, Surry, Watauga, Wilkes, and Yadkin. The registration fee is $10.00 per entry. Mr. Coleman Bailey, Colemanbailey@averyschool.net, is chairing the 2014-2015 Northwest Regional Science Fair. Online registration will be available sometime after mid-October at http://nsciencefest. Refer also to the MSEC website, www.msec.appstate.edu, for updated information concerning the Fair.

NCCTM NEWS

2014 FALL LEADERSHIP SEMINAR

The 2014 Fall Leadership Seminar will be held at the Koury Convention Center on Wednesday, October 29 (the day before the State Mathematics Conference). The theme is “Teaching and Learning for All Students.” The keynote speakers will be Dr. Jüli K. Dixon and her daughter, Alex Dixon, and Dr. Thomasenia Lott Adams. Dr. Dixon is a professor of Mathematics Education at the University of Central Florida. She has taught at the elementary, middle, secondary, and post-secondary levels. Dr. Dixon’s professional interests relate to developing and deepening teachers’ mathematics content knowledge for teaching and communicating and justifying mathematical ideas. Her presentation at the Leadership Seminar will be titled “Key Words Help: ‘Inquiry Won’t Work,’ And Other Myths: A Case Study Approach to Best Practices.”

Dr. Adams is a professor of Mathematics Education at the University of Florida, Gainesville. Her current research interests include the intersection of multiculturalism and the teaching and learning of mathematics and teachers’ mathematics content knowledge. Her presentation at the Leadership Seminar will be titled “Building Students’ Capacity to Lean.”

The Leadership Seminar is a great opportunity for teacher leaders and administrators to recharge, network, and continue learning about curriculum, pedagogy, and assessment. Visit the NCCTM web site at ncctm.org to register for the Leadership Seminar.

2014 STATE MATH CONTEST

The Math Contest will be held on October 30-31, 2014 at the Koury Convention Center in Greensboro. Tracey Howell, Tony Thompson, and Ryan Dougherty are the Contest Co-Chairs; Lisa Carmel and Amy Travis are the Program Co-Chairs; and Karen McPherson is the Program Booklet Editing Chair. Two new features from last year will be continued this year. There will be no workshop tickets, but the workshops will have a limit of 40 seats.

The conference app, Group, will be used. Look for information in the program booklet and at the conference about Group. The theme for the conference is “Big Ideas for Teaching and Learning Mathematics.” There are over 300 sessions and workshops on a wide variety of topics for teachers and other school personnel at all levels. The keynote speakers are: Dr. Jüli K. Dixon, Dr. Thomasenia Lott Adams, Wade Ellis, Cindy Neuschwander, and David Schwartz. The featured speakers are: Dr. Lee Stiff and Jane Kang. The conference consists of many informative sessions on mathematics content, pedagogy, technology, and assessment. This is a wonderful opportunity for teachers and administrators to recharge, network, and continue learning. Visit the NCCTM web site at ncctm.org to register for the Conference. A preliminary program is posted on the web site.

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 2015 Western Region Math Fair will be held on Saturday, March 21 at Pennington Student Union on the campus of Appalachian State University in Boone, and the NCCTM State Math Fair will be on Friday, May 8, 2015 at the North Carolina School of Science and Mathematics in Durham. The winners of the 2014 State Math Fair may be found at ncctm.org/math_fair/cfm and pictures of the Western Region Math Fair as well as the State Math Fair are posted at mathsci.appstate.edu/events/math-fair.

Start the program booklets on their projects for the upcoming 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 or contact Dr. Betty B. Long (longb@appstate.edu).

Information on the 2015 fairs and registration forms are posted on the NCCTM website.