

HAMTE Crossroads

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OFFICIAL
NEWSLETTER
OF THE
HOOSIER
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OF
MATHEMATICS
TEACHER
EDUCATORS

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ICTM/HAMTE Conference & Annual Meeting

HAMTE will hold its second annual business meeting and conference in conjunction with the Fall Conference of the Indiana Council of Teachers of Mathematics. The Conference will be held on Sunday, October 21, 2012 and Monday, October 22, 2012 at the Sheraton Indianapolis Circle Centre Hotel in Indianapolis, IN. Please visit the ICTM website at www.ictm.onefireplace.org for more information and to register online.

In addition to many sessions that will appeal to K-12 mathematics teachers, eight sessions have been reviewed by HAMTE Board members and will be designated as HAMTE sessions. The sessions will include two formats: *Presentations* and *Discussion Groups*. Presentations will be led by one or more individuals and will focus on results of current research or implementation of teaching ideas for mathematics teacher education. Discussion groups will be less structured and will focus on specific issues in mathematics teacher education; discussion group participants are encouraged to share their ideas for teaching. A list of HAMTE session titles and session presenters are below, however specific times and rooms for the sessions will be available in the ICTM conference program.

Presentations:

- *The Ladies Voices*; Crystal Hill Morton, IUPUI
- *Meaningful Relationships and Latino Mathematics Majors' Decisions to Pursue a PhD*; Victoria R. Larabell, Purdue University
- *Preparing Secondary Mathematics Teachers: Focus on Contexts and Modeling in Algebra*; Hyunyi Jung, Alexia Mintos, & Jill Newton, Purdue University
- *Valid or not? Pre-service Secondary Mathematics Teachers' Proof Evaluations*; Yi-Yin (Winnie) Ko, Indiana State University
- *What Do You Need to Know to Teach Algebra?*; Jill Newton, Purdue University; Rick Hudson, University of Southern Indiana

Discussion Groups:

- *Elementary Methods Courses: What, Why, and How?*; Sheryl Stump, Ball State University
- *Integrating CCSSM into Secondary Mathematics Teacher Education Programs: Opportunities and Challenges*; Jill Newton, Hyunyi Jung & Alexia Mintos, Purdue University
- *Teaching Mathematics to Preservice Elementary Teachers*; Rick Hudson, University of Southern Indiana

HAMTE will hold its Annual Business meeting on **Sunday, October 21 at 6:00pm in the Sheraton Library**. In addition to regular business, the meeting will include the election of two new HAMTE board members: president-elect and newsletter editor. The president-elect will serve a four-year term (one year as president-elect, two years as president, and one year as past president). The newsletter editor will serve a three-year term. Candidates for president-elect are Enrique Galindo (IUB), Sheryl Stump (Ball State), and Erik Tillema (IUPUI). Candidates for newsletter editor are Rachael Aming-Attai (Univ. of Indianapolis), Travis Miller (Univ. of Indianapolis), and Nancy Schoolcraft (IUB). Ron Benbow (Taylor University) and Craig Willey (IUPUI) are serving as members of the HAMTE Nominations and Elections Committee, and HAMTE members should have received information recently regarding election of the officers.

Following the HAMTE business meeting, any interested members are invited to continue their discussions during dinner at Palomino. Entree prices range from \$15-\$30 and the restaurant is a short walk from where the business meeting will be held. If you plan to join for dinner, please RSVP to Erik Tillema (etillema@iupui.edu) before October 14.

Bulletin Boards as Assessment in a Math Course for Preservice Teachers

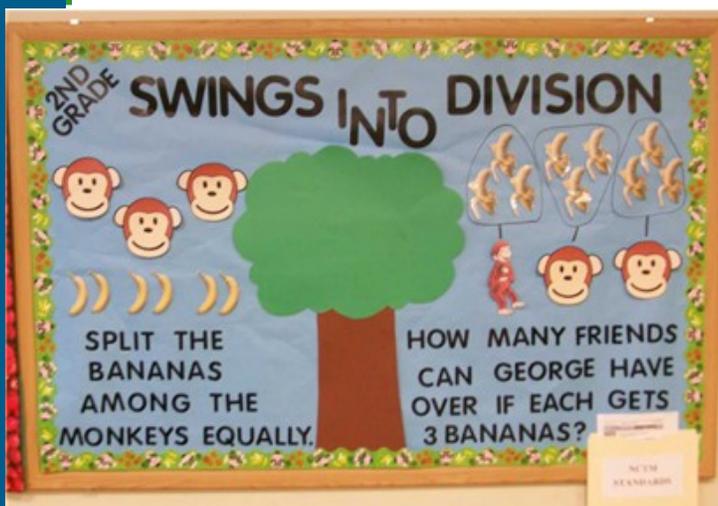
Submitted by Travis K. Miller, University of Indianapolis

Four years ago, I sought to further motivate preservice elementary teachers in my math courses by building upon their creativity and desire to help their future students learn. I also wanted to assess students' understandings of course content in a nontraditional fashion that would bridge the gap between content and methods courses that these students took in mathematics.

As a result, at the beginning of the semester groups of three to four students sign up for a week and corresponding section of our text from which they develop a bulletin board. The board provides depth to a particular topic that the group selects from the section – a topic which has been studied in class during the preceding week. Evaluation is broken into three equal parts: (1) evaluation of the board by the instructor; (2) the mean of evaluations of the board by classmates; and (3) evaluation of individual's contribution as assessed by other

members of the group. Students complete evaluations electronically using an assessment tool within our online management system, facilitating the grade calculation process. Assessment by classmates and the instructor uses a 5-point scale on each of the following criteria:

- Overall appearance and organization
- Appropriate content for the indicated grade level
- Meaningful and useful mathematics content
- Correct mathematical content
- Value for the intended student population
- Inclusion of appropriate Common Core Standards



Group members evaluate each other using a 5-point scale for the following:

- Punctuality and attendance at group meetings
- Appropriate level of communication throughout the project
- Contribution of ideas and content
- Completion of his/her fair share of the workload

Students are also encouraged to share additional feedback. While the emphasis is on assessment of mathematical knowledge, the project does allow these preservice teachers to tie their learning to their chosen career path, and allows course content to be tied to the standards. Students enjoy the opportunity to put their learning into practice, and the boards regularly promote discussion among the faculty within the math department, where the boards are displayed each week.

Share an idea!

Do you have an inspiring teaching practice, a unique task, or an innovative assessment that you are willing to share with other mathematics teacher educators? Do you have an update about happenings at your campus? Email your contributions to rhudson@usi.edu.

Update: Elementary Math Specialists in Indiana

Submitted by Sheryl Stump, Ball State University

Two years ago, a team of Hoosiers—Signe Kastberg (Purdue University), Doris Mohr (University of Southern Indiana), Jane Cooney (math coach at Greenfield-Central Schools), Lauren Rapacki (doctoral student at Indiana University), Blair Buchanan (Indiana Department of Education), and I—attended a conference sponsored by AMTE and focused on the certification of elementary mathematics specialists (EMS). The team developed an action plan for securing EMS licensure in Indiana, developing a graduate program of study for licensure candidates, designing professional development for EMS professionals, and synthesizing existing research and creating new research. As progress toward our goals slowly continues, we can look to HAMTE for leadership and participation in this effort. With that in mind, here is a brief update on the status of our goals.

EMS Licensure: The IDOE is not currently poised to establish EMS licensure. There have been some conversations, and a couple of staff members are interested. Perhaps, with the advent of the PARCC assessments, the issue may be able to attract some attention at IDOE.

Statewide Master's Program: Representatives from several Indiana universities worked to design a collaborative master's degree program based on the *AMTE Standards for Elementary Mathematics Specialists*. So far, Ball State is the only university to offer the program, but we are hopeful that others will follow and that an articulation agreement can be developed among the universities.

Professional Development: For those professionals who are currently in EMS roles, our hope is to develop a program of professional development also guided by the *AMTE Standards*. Our statewide experiences with MSP grants and other professional development projects provide a base from which to grow.

Research: Research on EMS does exist, and some of it can be easily accessed, thanks to the Elementary Mathematics Specialist and Teacher Leaders Project (<http://mathspecialists.org/>). Here in Indiana, Lauren's doctoral dissertation will compare different models of EMS professionals.

Perhaps the most important discussion to be having at this time is with K-12 school and district leaders in Indiana. Are they aware of the special knowledge and skills that EMS professionals can bring to schools? Would they support the establishment of EMS licensure in Indiana? What roles currently exist for EMS professionals in Indiana? What kind of support do these professionals need to do their work?

Membership Renewal

If you would like to renew your Hoosier Association of Mathematics Teacher Educators membership for 2012-2013, you may 1) bring your membership form to the annual meeting on October 21 or 2) send your membership form to Sue Mau, IPFW, 2101 E. Coliseum Blvd., Fort Wayne, Indiana 46805. Membership fees are \$20 (or \$10 for students and emeritus members).

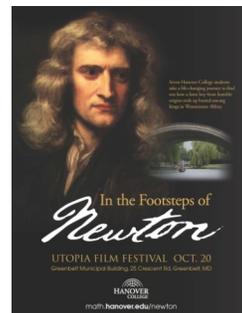


Charter Acceptance: Members accepted the HAMTE charter at the AMTE Annual Meeting in Ft. Worth, TX, in February. Pictured are Diana Lambdin (IUB), Marilyn Strutchens (AMTE President), Jill Newton (Purdue), Enrique Galindo (IUB), Rachael Kenney (Purdue), and Sandi Cooper (AMTE Affiliate Director).

Campus Updates across the State...

Ball State University...The Department of Mathematical Sciences at Ball State University is delighted to welcome Jerry Woodward as a new tenure-track assistant professor. Jerry comes to us from Purdue University where he is completing a PhD in Mathematics Education. His research focuses on how students with learning disabilities construct the reasoning necessary to develop algebraic concepts.

Hanover College... Nancy Rodgers, chair of the Mathematics Department at Hanover College, and Elizabeth Winters, General Manager of the Hanover College TV Channel have produced a film entitled *In the Footsteps of Newton*. Starring seven Hanover college math majors, the film was featured at the MAA annual summer convention and selected to be in the *Utopia Film Festival* in Greenbelt, MD on Oct. 20. The film follows the students as they take a life-changing journey to find out how a farm boy from humble origins ends up buried among kings in Westminster Abbey. They follow in Newton's footsteps, from his early life on the farm at Woolsthorpe Manor, to his student days in Grantham and academic life in Cambridge, to his final years in London. A limited number of DVDs are available, and users are encouraged to post comments on the website: math.hanover.edu/newton, which also includes a trailer of the film. The comments will be a great asset in helping them secure funding to distribute DVDs to educators and to promote the film to a global audience. If you would like to review a DVD and write a comment or arrange a screening at your school, please contact Nancy Rodgers: rodders@hanover.edu.



Indiana State University...The Department of Mathematics and Computer Science is pleased to welcome two new tenure-track mathematics education faculty this year: Dr. Jodi Frost and Dr. Winnie Ko. Dr. Frost just received her Ph.D. from the University of Idaho in Moscow. Dr. Ko received her Ph.D. from the University of Wisconsin, Madison and completed a post-doc at Tufts. Additionally, Liz Brown, Professor of Mathematics and Computer Science, has been named to the Indiana Educator Leader Cadre for PARCC.

Indiana University– Bloomington...IU Bloomington is searching for a new faculty member in mathematics education to start in the fall of 2013. Information on the position can be found at <http://education.indiana.edu/Default.aspx?tabid=4843>. Last March, IUPUI, IUB, and Purdue held a joint mathematics education research symposium in Indianapolis. Although the details are yet to be worked out, another symposium is planned for Friday, March 22, 2013 and math education researchers from throughout Indiana are welcome to attend. With respect to graduation, IU doctoral student Olu Adefope finished her degree and is now teaching at Georgia Southern University. Rachael Aming-Attai finished her dissertation this summer and is now a faculty member at the University of Indianapolis. LeeAnn Ferguson finished her dissertation last spring and has returned to active duty as an instructor in the Air Force. Closer to home, Hsueh-Chen Huang finished her masters degree at IU and entered the doctoral program here.

Indiana University-Purdue University Columbus...In March, Chris Walcott was awarded the 2012 IUPUC Outstanding Full-Time Faculty, Research, Scholarship, and Creative Activity Award.

Indiana University-Purdue University Indianapolis...IUPUI is to host the 2012 Midwest Noyce Regional Conference at the University Place Conference Center and Hotel. The Conference will begin on Thursday, October 4th at 1:00 pm and conclude at 3:30 pm on Friday, October 5th. Please click here <http://noyceconferenceindy.org/> and review the Conference Proceedings. The Noyce conference agenda is built around the theme: “*Common Core, NGSS (New Generation Science Standards), Digital Learners: STEM Teaching at the Crossroads*”. Plenary speakers are distinguished educators or scientists who have been key contributors to the development of Common Core Standards in Mathematics (Dr. W. Gary Martin) and the New Generation of Science Standards (Dr. Joseph Krajcik) and Julie Evans, CEO of Project Tomorrow, one of the Top Ten Most Influential People in Education Technology who will speak about tomorrow's learners and their expectation for personalized learning.

Purdue University—West Lafayette... Graduate student Hyunyi Jung was awarded a Susan Gay Conference Travel Scholarship from AMTE. The Susan Gay Conference Travel Scholarship provides recipients with free conference registration and an additional \$400 to offset the cost of attending the AMTE conference.

University of Southern Indiana...Ms. Ashley Whitehead has joined the USI Department of Mathematics as an Instructor in Mathematics with teaching responsibilities that will include content courses for elementary education majors. Ms. Whitehead previously taught at Austin Peay University and holds a Masters degree from Indiana State University. Dr. Bonnie Beach has also joined the USI faculty as the Associate Dean for Teacher Education. Dr. Beach previously was the Dean of Education at Ohio Dominican University and is the former president of the Ohio Council of Teachers of Mathematics. She has previously taught coursework in mathematics education and curriculum change and was a K-12 teacher and supervisor of mathematics. She holds a Ph.D. and M.Ed. from Ohio University.

Call for Manuscripts: The *Indiana Mathematics Teacher*, a peer-reviewed publication of the Indiana Council of Teachers of Mathematics, is seeking manuscript submissions. Beginning in fall 2012, the journal will once again become available in print. Manuscripts should be written for an audience of K-12 mathematics teachers and should be limited to approximately 1500-2000 words. For more information email Doris Mohr at djmohr@usi.edu.