Teaching and Learning Mathematics
K-14:
“Common Core Standards in the Classroom”

61st Annual
Western Illinois University
Mathematics Teachers’ Conference

Friday, March 23, 2012
61st Annual
Western Illinois University
Mathematics Teachers’ Conference
Friday, March 23, 2012

8:00 – 8:30 AM  Registration & Continental Breakfast
Morgan Hall, First Floor

8:30 – 9:30 AM  Welcome
Keynote Address
Dr. Hung-Hsi Wu
“What is the Area of a Rectangle?”
Morgan Hall 109
A 5th grade Common Core Standard states, “Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.” This presentation will speak to this standard.

9:45-11:40 AM  Morning Sessions
Horrabin Hall

11:45 -12:15 PM  Lunch
Horrabin Hall Gymnasium

12:20 AM - 1:50 PM  Workshops
Horrabin Hall & Morgan Hall

2:00 – 2:50 PM  Closing Address
Susan Morrison:
“Moving Forward with New Standards”
Morgan Hall 109
This presentation will address how the common core standards and the new assessments and evaluation procedures will impact Illinois classrooms, curriculum and teachers.
61st WIU Math Teachers’ Conference
Main Speakers

Opening Speaker: Hung-Hsi Wu  8:30 – 9:30 am
“What is the Area of a Rectangle?”
Dr. Wu is a professor emeritus at the University of California at Berkeley. He served on the National Mathematics Advisory Panel, and his main research focus has been on mathematics curriculum and teacher preparation. He conducts professional development workshops for elementary and middle school teachers.
He has worked extensively with the State of California in mathematics education, and he was a member of the Mathematics Steering Committee that contributed to revising the National Assessment of Educational Progress Framework. In recent years, Dr. Wu has focused on writing textbooks for the professional development of K-12 mathematics teachers. In his article, “Phoenix Rising: Bringing the Common Core State Mathematics Standards to Life,” in the Fall 2011 issue of American Educator, Dr. Wu’s states that “the main difference between these standards and most of the others is that the CCSMS are mathematically very sound overall. They could serve—as long last—as the foundation for creating proper school mathematics textbooks and dramatically better teacher preparation.”

Dr. Wu’s webpage at the University of California at Berkeley is http://math.berkeley.edu/~wu.

Closing Speaker: Susan Morrison  2:00 – 2:50 pm
“Common Core Standards in the Classroom”
Susan Morrison is the Illinois Deputy State Superintendent of Education. She has worked in the education field in Illinois for more than 30 years as teacher, administrator, and the Director at the state office of the North Central Association Commission on Accreditation and School Improvement. Susie has served in her current role since 2007.
Susie has shared her knowledge and expertise of standards and policies with us at past conferences. Due to the critical transition period in mathematics education at both the state and national levels, we have asked her back to update us on the current status of standards, assessments, and programs.
This year Susie will address how the common core standards and the new assessments and evaluation procedures will impact Illinois classrooms, curriculum and teachers.
# Schedule

61st Annual Western Illinois University Mathematics Teachers’ Conference  

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<th>Time</th>
<th>Location</th>
<th>Grades K-4</th>
<th>Grades 5-8</th>
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<td>HH 26</td>
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<td>8:00 – 8:30</td>
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<td>9:45 – 10:20</td>
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<td>HH 78</td>
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<td>10:25 – 11:00</td>
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<td>11:05 – 11:40</td>
<td>Morning Session #3</td>
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<td>11:45 – 12:15</td>
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**Registration and Breakfast**  
MG 109 - Lobby

**Welcome**  
**Keynote Address**  
Dr. Hung-Hsi Wu  
“What is the Area of a Rectangle?”  
MG 109

**Martha Mitchell**  
Problem Solving and the Common Core

**James Olsen**  
Making Sense out of Fraction Word Problems

**Mary O’Sullivan**  
Numeracy  
Coaching in Action

**Amanda Meiners**  
To Assessment . . .and Beyond!  
Alternative Assessments

**Tina Johnson**  
Immersing Common Core Standards Using Early Numeracy  
Differentiated Workstations

**Connie Stoner**  
Free Internet Resources to Enrich the Mathematics Classroom

**Brian Katz**  
Let the Students Explore: Inquiry in the Classroom

**George Marino**  
Fascinating Figures

**Glory Jurich-Sarna**  
Teaching Math through Poetry

**Kathy Felt**  
RTI Classroom Interventions: What Works and How Do I Find the Time?

**Robin Manker**  
Solving Absolute Value Equations and Inequalities

**Craig Russell**  
Teaching with Illuminations

**Virginia Luce**  
Subtraction a Better Way

**Hung-Hsi Wu**  
How to convert a fraction to a decimal.  
Morgan 208

**Janet Moore**  
NASA’s Pi in the Sky

**Closing Address**  
Susan Morrison  
“Common Core Standards in the Classroom”  
MG 109
Morning Sessions
09:45 – 11:40 AM
Horrabin Hall

9:45 – 10:20 AM  Morning Session # 1  -  Horrabin Hall

Grades K-4
HH 26
Martha Mitchell,  Western Illinois University, Macomb, IL  MA-Mitchell@wiu.edu

“Problem Solving and the Common Core”

Come learn some ways to select a variety of word problems and then help students at all levels solve them. Emphasis will be on additive and multiplicative structures and problem solving incorporating the Common Core.

Grades 5 – 8
HH 78
James Olsen,  Western Illinois University, Macomb, IL  JR-Olsen@wiu.edu

“Making Sense Out of Fraction Word Problems”

Understanding fractions and real world problems involving fractions are CCSS focus areas for 5th and 8th grade. We will discuss how we can extend the meanings of the four operations (hopefully previously taught) and models (which were used to introduce fractions) to help students solve real world problems involving fractions—yikes, we can do it!

Grades 9 – 14
HH 82
Mary O’Sullivan and James Dobrzanski,  J.S. Morton High School, Cicero, IL Teach72772@sbcglobal.net

“Numeracy Coaching in Action”

J. S. Morton High School District #201 has instituted a numeracy coaching model on all three campuses. Come and see how “numeracy coaching” has helped improve math instruction in the classroom, as well as, integrate math throughout all content areas.

Grades 5 – 11
HH 27
Amanda Meiners,  Lewistown High School, Lewistown, IL meinersaj@live.com

“To Assessment . . . And Beyond! A look at alternative assessments from a first-year teacher.”

We will explore methods to alternatively assess knowledge in topics such as conic section, math vocabulary, formulas and solving equations. This will include the use of popular game shows and well-known book and TV character plots. Information packets will be available.
10:25 – 11:00 AM  Morning Session # 2 - Horrabin Hall

Grades K – 4  
HH 26  
Tina Johnson,  Woodrow Wilson Elementary, Peoria, IL  numeracyrocks@yahoo.com

“Immersing Common Core Standards Using Early Numeracy Differentiated Workstations”

An overview of forming groups and tracking progress, designing a management board, choosing workstation materials that foster common core standards including number operations, base ten, and algebraic thinking, and how to differentiate the workstations will be shared. Brief video clips demonstrating some workstations will be shown.

Grades 5 – 8  
HH 78  
Connie Stoner,  Stark County Junior High, Kewanee, IL  cstoner@stark100.com

“Free Internet Resources to Enrich the Mathematics Classroom”

The Internet is abundant with free resources to enrich classrooms. We will look at a few including SAS Curriculum Pathways, That Quiz and Mangahigh.

Grades 9 – 14  
HH 82  
Brian Katz,  Augustana College, Rock Island, IL  briankatz@augustana.edu

“Let the Students Explore: Inquiry in the Classroom”

Inquiry methods allow students to experience math authentically, which has benefits in terms of affect, skill, and content. Some teachers worry about (1) the perceived lack of control, (2) dealing with feedback and student errors, and (3) the work making modules. We will engage the audience in an inquiry experience that aims to reduce these fears.

Grades 9 – 11  
HH 27  
George Marino,  Aurora Central High School, Naperville, IL  georgejmarino@aol.com

“Fascinating Figures”

Imagine creating a new geometric figure! You can name it, draw it on a Dynamic Geometry System, make conjectures, test and prove them. You will encounter the full range of geometric experiences.
11:05 – 11:40 AM  Morning Session # 3 - Horrabin Hall

Grades K – 6
HH 26
Glory Jurich-Sarna,  Indian Springs Schools, Orland Park, IL                  sarnaBGD@aol.com

“Teaching Math through Poetry”

This session will review literature that uses math poetry. Lesson plans and centers will be discussed. Teaching math using poetry helps develop concepts and vocabulary. Incorporating literacy and math helps students read and use the language of math. Poetry is a fun way to develop number sense.

Grades 5 – 11
HH 78
Kathy Felt,       Western Illinois University and Sherrard Junior High School    feltk@sherrard.us

“RTI Classroom Interventions: What Works and How Do I Find the Time?”

Finding appropriate classroom interventions—and the time to implement them—can be a challenge. This presentation offers practical tips for selecting and implementing appropriate interventions to improve student learning and achievement, without losing your sanity!

Grades 9 – 14
HH 82
Robin Manker,   Illinois College, Chapin, IL                                   rmanker@hotmail.com

“Solving Absolute Value Equations and Inequalities”

Absolute value equations and inequalities are often difficult for students to solve. Most methods stress “distance” along with conjunction and disjunction. The method I will demonstrate is a visual approach that stresses the definition of absolute value.

If you use this method, your students will be able to solve more difficult problems than your previous students have been able to solve, and they will have a better understanding of the concept of absolute value.

Grades K-14
HH 27
Craig Russell, University of Illinois Laboratory High School, Urbana, IL      hcrussel@illinois.edu

“Teaching with Illuminations”

NCTM’s Illuminations project includes (free) lessons and activities for every grade level and for many math topics. See how easy it is to incorporate meaningful mathematics into your lesson planning!

11:45 am to 12:15 pm: Lunch in Horrabin Hall Large Gymnasium
(Facing Computer Lab 111 on the map)
### Workshops 12:20 pm – 1:50 pm
#### Horrabin Hall & Morgan Hall

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<tr>
<td>Horrabin Hall 26</td>
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<td><strong>Virginia Luce,</strong></td>
<td>Otterbein Elementary, Otterbein, IN</td>
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<td><strong>“Subtraction a BETTER Way”</strong></td>
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<td>Participants will learn four strategies that empower students to master the 100 subtraction facts. These strategies use a simple manipulative, and some songs that are well grounded in what we know about how young children learn</td>
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<td>Emeritus, University of California, Berkeley</td>
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<td><strong>“How to Convert a Fraction to a Decimal”</strong></td>
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<td>A standard middle school algorithm says to divide the numerator by the denominator. The question is “why”. There is a lot of mathematics involved and this presentation gives an explanation.</td>
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<td><strong>Janet Moore,</strong></td>
<td>NASA and Illinois State University</td>
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<td><strong>“NASA’s Pi in the Sky”</strong></td>
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<td>Use simple materials along with concepts of ratio and proportions to define “radian” and “pi.” Then use ratios, proportions, and angles to explore astronomical phenomena. Free NASA materials will be provided.</td>
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### 2:00 – 2:50 PM
#### Closing Address
#### Morgan Hall 109

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The shaded areas are the conference rooms.
Notes …
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Sponsors of the 61st Annual Western Illinois University Mathematics Teachers Conference

We are grateful for the support from the following:

- Western Illinois University
  - College of Arts and Sciences
  - College of Education and Human Services

We also thank the following sponsors:

- WIU Department of Mathematics
- Illinois Council of Teachers of Mathematics (ICTM)
- West Central Council of Teachers of Mathematics (WCCTM)
- Hancock and McDonough Counties ROE # 26
  John Meixner, Superintendent
- Fulton and Schuyler Counties ROE # 22
  David Demler, Superintendent

The 2012 ICTM Annual Meeting and Conference will not be held. In its place, Illinois is hosting...

The Chicago NCTM 2012 Regional Conference & Exposition
November 28-30, 2012
Chicago, Illinois

More Information from NCTM (www.nctm.org/conferences)
More Information from ICTM (www.ictm.org)

Next Year’s Tentative Conference Date
Friday, March 22, 2013.
Are you interested in being a speaker?
Do you have suggestions for speakers?
Contact: Mathematics-Western Illinois University
Phone: (309) 298-1054 or (309) 298-2275
Email: Mathematics@wiu.edu
Website: www.wiu.edu/math