The Mathematics and Computer Information Sciences Department State University of New York College at Old Westbury

Presents The Twenty-Eighth Annual



Long Island Mathematics Conference

Trimming Mathematical Sails to the Common Core Winds

at SUNY College at Old Westbury Campus Center

Co-sponsored by: **Sciences Department** The Nassau County P.O. Box 210 Mathematics Teachers' **SUNY College at Old Westbury** Association Old Westbury, New York 11568-0210

The Suffolk County Mathematics Teachers'

> The Nassau County Association of

The Association of

of New York City

and partially funded

by a grant from NYS Department of Education

Mathematics Supervisors

Teachers of Mathematics

Association

LIMAÇON

Mathematics and Computer Information

Registration materials inside.

Friday, March 14, 2014, From 7:45 A.M. to 2:35 P.M.

LIMACON, designed for mathematics educators from primary through university level, provides opportunities for professional interactions and offers a forum for the exchange of concerns, innovative ideas, and achievable goals. This year's conference theme is "Trimming Mathematical Sails to the Common Core Winds."

The **Keynote speaker** at this year's conference is **Dr. William McCallum**, co-author of the Common Core State Standards. Dr. McCallum's keynote address, "Illuminating Illustrative Math", will be followed by a daylong series of sessions and workshops focused on mathematics education, pedagogy, and problem solving. Presenters and participants alike can expect the sessions to provide ideas, techniques, and skills that help improve teaching and content effectiveness, and recharge batteries.

MANY SESSIONS REQUIRE CALCULATORS - PLEASE BRING YOUR OWN ON-SITE REGISTRATION WILL BE ACCEPTED ON A LIMITED BASIS (\$10 ADDITIONAL FEE). NO CONFIRMATION WILL BE SENT.

ANY QUESTIONS? CALL JUANITA MALTESE, 516-220-0008 (jmaltese@optonline.net) OR MIMI SCHNIER, 516-876-3261

REGISTRATION FORM

LIMAÇON, Friday, March 14, 2014 at SUNY College at Old Westbury, Campus Center from 7:45 A.M. to 2:35 P.M. Register early to ensure your choice of sessions. Come early to browse the vendor displays.

Cost of conference: Fee includes Continental Breakfast and Luncheon. (Please check one)

☐ \$50.00 for ATMNYC, NCAMS, NCMTA or SCMTA members

\$60.00 for non-members

Full-time students pay only \$25.00

-ON-SITE REGISTRATION WILL BE ACCEPTED ON A LIMITED BASIS (\$10 ADDITIONAL FEE)

Mail form and check by February 28, 2014 to: (checks payable to: L.I. Mathematics Conference Board)

Mr. Arthur L. Kalish, Director of the Institute of MERIT SUNY College at Old Westbury Box 210

Old Westbury, NY 11568-0210

Address School/District Represented Telephone

Please write the session number for your first, second, and third choice for each session.

1st Choice Session B or C 1st Choice Session D: 1st Choice Session A: #16 - 35 2nd Choice #36 - 50 2nd Choice #1 - 15 2nd Choice 10:30 - 11:20 3rd Choice 11:35 - 12:25 or 3rd Choice 1:45 - 2:35 3rd Choice 12:40 - 1:30

LUNCH MENU: You must select one of the following when you register:

- 1. Chef Salad (no ham)
- 2. Vegan/gluten free platter (baby spinach with roasted vegetables)

- NO CONFIRMATIONS WILL BE SENT - NO REFUNDS
- BRING YOUR OWN CALCULATOR Make copies of this form if more are needed

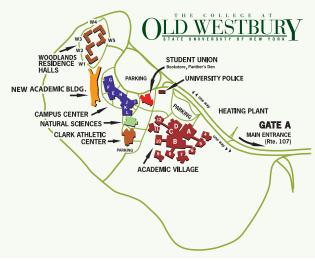
Directions to SUNY College at Old Westbury

BY CAR: SUNY College at Old Westbury is located immediately north of the Long Island Expressway (495) in the Village of Old Westbury, Long Island, approximately 30 miles east of New York City.

The main entrance to the College is located on the west side of Route 107 approximately one-half mile north of Jericho Turnpike.

BY TRAIN: The Long Island Railroad stops at the Hicksville station. Train schedule and route information are available from the LIRR, 516-822-LIRR. Bus service is available to and from the Hicksville station Monday through Friday. Bus schedule information may be obtained from the MTA Info Center, 516-222-1000.

BY BUS: The College is accessible by bus via MTA bus route N20, which travels between Main Street, Flushing and the Hicksville railroad station along Northern Boulevard and Route 107. The bus connects with other MTA buses at various connecting points along Northern Boulevard and elsewhere. Call the MTA Information Center (number above) for schedule and additional route information.



When using a GPS device please make sure that it takes you to the main entrance off route 107.

SCHEDULE FOR THE LONG ISLAND MATHEMATICS CONFERENCE

7:45 - 8:30 CHECK-IN, CONTINENTAL BREAKFAST and VENDOR BOOTHS Campus Center

8:45 - 9:15 INTRODUCTION by L.I. Conference Board

9:15 - 10:15 KEYNOTE ADDRESS by Dr. William McCallum,

Co-author of the CCSS and Distinguished Professor of Mathematics at the University of Arizona

10:30 - 2:35 SESSIONS A-D see schedule

BUFFET LUNCHEON during either session B or C

VENDOR BOOTHS AVAILABLE 7:45 - 1:45

SESSION A 10:30 -- 11:20 (Select three sessions from numbers 1 - 15)

1. Using Alternative Algorithms to Achieve Maximum Results (K-6) John Hinton Math Matters, Inc. Are your students struggling with long division, regrouping, double digit multiplication, or other skills? Explore meaningful, motivating alternatives to teach the four operations while building number sense.

2. Stop Counting By Ones or Else... (K-4)

Mary Altieri

Putnam/North Westchester BOCES

Second graders (and higher) still counting up by ones? using fingers or pencil tapping? Then they will probably be doing it next year, and the next, and the..., unless we teach them strategies that go beyond "counting up." Never too late.

3. Activities to Make the Common Core Come Alive! (5-7) Lisa Clark Floral Park Memorial HS
In this presentation, you will participate in hands-on activities that will delight your classes! I will share great ideas for topics including Integers, Equations,
Measurement, and Solid Geometry.

4. Why Does it Work? Operations with Fractions (5-8) Irina Lyublinskaya CUNY College of Staten Island We will develop procedures to help students understand operations with fractions. By using models and various contexts, we can help them avoid common misconceptions and inappropriate strategies for solving fraction problems.

5. The Teaching of Ratio & Proportional Reasoning (6-8)

Proportional reasoning is the most fundamental topic in MS mathematics. It affects the ability to understand fractions, measurement, functions and algebra. We'll do some hands-on, real-world, activities to strengthen this key concept.

6. Division Rules for Integers ending in 7 or 9. (6-12) Paul E. Schwiegerling
 Interesting patterns emerge when dividing by 7, 17, 27, etc. Similar patterns emerge for 9, 19, 29, etc. Learn how to program your calculator and discover a neat relationship.

 7. TI Solutions for Your Classroom (7-C) Dana Morse Texas Instruments

Get the most out of the Texas Instruments Educational Technology in your classroom; this session will offer the audience tips and tricks to assist educators and students. Learn about the new features and functionality of the calculators and software.

8. Adopting, or Adapting, Engageny Modules Using SMART Board (9-12) Matt Ringh
Invigorate the ENGAGENY modular curriculum using your classroom technology. Resources for Statistics, Geometry, Trig, and Functions will be explored along with the best module resources to align with your existing curriculum.

9. Statistics for the Common Core (9-12) Christine Healy
We will provide classroom ready examples of statistical explorations and analysis. Appropriate for Algebra I and Algebra II and Trigonometry.

10. Do flipped classrooms really work in K-12? (9-12)

Aziz Elmrini & Betsy Benedith

Do you want to make learning more effective and engaging? The flipped classroom may provide an answer. How can we make it work? What are the pros and cons?

11. The Perfect App (9-C)

Sarah Ewald

Molloy College

With over 40,000 education apps available for the iPad, we focus on top selling math apps and determine how compatible they are with pedagogic practices.

Based on the reviews, recommendations are made to create the "perfect" app.

12. Modeling in the HS Common Core Classroom (9-C)

Terri Lynne Germain-Williams

Mercy College

In this workshop, we will explore the definition and nature of mathematical modeling, as well as analyze and engage in sample problems appropriate for the high school classroom that are aligned to CCSS.

13. Use GeoGebra to Enhance Your Lessons (9-C)

Steven Goldman

Half Hollow Hills HS/SCMTA

13. Use GeoGebra to Enhance Your Lessons (9-C)

Steven Goldman

Half Hollow Hills HS /SCMTA

We will discuss some of the uses of GeoGebra, a free dynamic software that enables teachers to enhance their lessons in various topics in Mathematics, including, but not limited to, geometry, trigonometry, pre-calculus, and calculus.

14. That's Not How I Learned Math! (General) Michelle Burget & Theresa Burke South Woods MS

How can math teachers help parents and colleagues understand the Common Core curriculum? We will develop strategies for communicating the principles of the Common Core so that parents and colleagues can better support student success.

15. Ready for the HOT PARCC assessments? Got Inquiry? (General) Stephen Reinhart Kendall-Hunt How well do you understand the CCSS 8 Standards & how to bring these best teaching practices into your classroom? Test your knowledge with this engaging activity by matching tasks to the 8 mathematical practices that best describe them.

SESSION B 11:35 - 12:25 (Select three sessions from numbers 16 - 35)

16. Fractions and Decimals, oh my!! (K-4)

Make and take activities and learn to use games that will help students grasp the concepts of fractions and decimals and reinforce the CCSS for Numbers and

Operations. Be prepared to use these activities in your classrooms the next day.

17. Assessments Looming Large? Have some fun! (4-8)

Get your students excited about creative problem solving! By using problems with multiple solution paths, they will learn strategies for solving the types of problems encountered on those assessments and how to explain their thinking.

18. Number Theory Games to Meet and Exceed the CCSS (5-8)

Beginning with the Break the Code Game, lead your students on a journey through the marvels of number theory. Along the way we will look into strategies that meet, and often exceed the Common Core State Standards.

19. Techniques of Questioning (5-8) Fred Paul
The use of questioning to motivate students and teachers in the mathematics classroom.

NYSED (Retired)

20. Making Sense of Variables, Expressions, and Equations (5-12) Irina Lyublinskaya CUNY College of Staten Island
In this session, we will find ways to help middle school students make sense of variables and equivalent expressions. We will explore activities that build
understanding of the connections between equations and equivalent expressions.

21. Adopting, or Adapting, Engageny Modules Using SMART Board (6-8) Matt Ringh
Invigorate the ENGAGENY modular curriculum using your classroom technology. Resources for Tape Diagrams, Fluency, Ratios, Geometry, and Functions will be explored along with the best module resources to align with your existing curriculum.

22. Navigating through the CCSS with TI Solutions (7-C) Dana Morse Texas Instruments
Create the classroom that incorporates dynamic geometry, statistical and spreadsheet software seamlessly. Share students' work with the class. Use JMAP resources for Formative assessments and track success with a built in portfolio.

23. Connecting over Pi (9-12)

Lidia Gonzalez

York College, CUNY

Engage in various activities involving pi and highlighting connections to content such as linear equations, data analysis, and even a gentle introduction to limits while linking content to the CCSS. Bring a graphing calculator if possible.

24. Easing the Transition from High School to College (9-C)

Lisa Cook & Christine Brady

Suffolk Community College
College readiness means that a student can successfully complete college courses without remediation. For the students who do not meet these requirements, we will discuss ideas regarding the challenges that entering freshmen face.

25. The "Flipped" Road Ahead (General)

Jerry Chen

Suffolk Community College
With advanced technology, more classes are being flipped in k-12 schools and colleges. In this talk, the journey of a college professor who partially flipped a
PreCalculus class in the Fall 2013 semester will be described.

SESSION C 12:40 - 1:30 (Select three sessions from numbers 16 - 35)

26. Math – Art – Array (K-4) Diann McCabe Front Street School
The rectangular array is used to teach multiplication and leads to understanding area. Arrays reinforce the meaning of multiplication as repeated addition. The art connection is with artist Wassily Kandinsky and his color study of squares in concentric circles.

27. Make Math Fun While Covering the Standards (K-4) Erin Mulholland Notre Dame School
Use fun activities to reinforce the Common Core standards. Play math games. Use math manipulatives. Sentence strips reinforce expanded form. We will focus on activities for place value, addition, and subtraction.

28. Stained Glass Tessellations (3-12) Roberta M. Eisenberg UFT Math Teachers Committee
After a brief exploration of the geometry of regular polygons and the properties required for tessellations, I will show slides of my attempt to make all three

regular and eight semi-regular tessellations in "stained glass."

29. Area - No Problem? (4-8)

Investigate area concepts by solving authentic, non-routine problems. Finding them can be the real problem. Work through at least a dozen area classics, selected

from the Math Olympiad library. Leave with these and over 50 more rich problems.

30. How Modeling Promotes Conceptual Learning (5-12) William Farber Mercy College
We will focus on mathematical modeling as defined by the Common Core. The activities presented will model real world connections and incorporate the effective

we will focus on mathematical modeling as defined by the Common Core. The activities presented will model real world connections and incorporate the effective use of manipulatives.

31. Using Colored Grids to Create Pythagorean n-tuples. (6-12)

Paul E. Schwiegerling

SUNY Buffalo

Find a Pythagorean Triple by counting colored squares on an odd sized grid then we will use this information to generate Pythagorean n-tuples.

32. Lessons Through Problems (9-12)

Soowook Lee

Roslyn HS

How about having students investigate and own the lesson? This is possible through sequencing the problems. This talk will share how discovery and student-

How about having students investigate and own the lesson? This is possible through sequencing the problems. This talk will share how discovery and student-centered lessons can be structured through problems.

33. Writing Common Core Questions (9-12)

Christine Healy

Molloy College

This workshop will assist teachers in writing items that address "deeper thinking" and multi-level concepts.

34. Can You Believe It? Mathematical Fallacies! (9-12)

Alan Sultan

Queens College
A variety of surprising mathematical facts, together with some geometric and algebraic fallacies will be presented that will really have you scratching your head in

35. Standards Based Grading (General) Michael London The Queens School of Inquiry
Learn how to identify individual students' strengths and weaknesses in mathematics through standards based grading. Participants will actively grade by standards and then will be given an introduction to standards based grading.

wonderment

SESSION D 1:45 - 2:35 (Select three sessions from numbers 36 - 50)

36. Adopting/Adapting, Engageny Modules Using SMART Board (PreK-5) Matt Ringh Tequipment
Invigorate the ENGAGENY modular curriculum using your classroom technology. Resources for Number Bonds, Tape Diagrams, Fluency, and Fractions will be
explored along with the best module resources to align with your existing curriculum.

37. Did You Say Fraction? (K-4)

The CC Math Modules ask students to visually think math. Students need to show work using illustrations and diagrams. Hands on activities which enhance multiple representations are valuable for testile and visual learners. This activity reviews and introduces parts of a whole

multiple representations are valuable for tactile and visual learners. This activity reviews and introduces parts of a whole.

38. Not-So-Ordinary Content & Practice Standards Problems. (3-5) Grace Quinlan Molloy College

Using Color Tiles, we will explore several problems involving patterns, perimeter and fractions, and "persevere" in solving them!

39. Optical Illusions = Mind Bluff(3-5)

Everyone loves optical illusions! You will explore the math behind optical illusions. Every participant will design an illusion of a 3-Dimensional room on a 2-Dimensional piece of paper using math measurement tools. Bring your imagination!

40. Unpacking Geometry Problems From Boxes You Make (4-9)

Transform used greeting cards into boxes, while discovering geometry concepts that rely on definitions associated with parallelograms. Real life, non-routine problems using those properties will be explored.

41. Beyond the Bubble Sheet (2-4)

Joanne Lufrano

Consultant

Test prep can be time consuming, tiresome and boring for you and your students. Let's Engage your students and have fun with hands on math activities that address the CCLS and Mathematical Practices.

42. Learning Menus: An Appetite for Mathematics (5-12) Krysten Malloy & Nicole Francipane Queens School of Inquiry
Use learning menus to engage students, give them choices, and differentiate instruction based on their needs and learning styles. We will discuss ways to develop menus for different topics and in different formats.

43. Simpson's Paradox: A Guaranteed Interest Grabber (5-12) Steven Conrad Roslyn HS (Retired)
How is it possible for Alex Rodriguez to have a higher batting average than Derek Jeter each month of the summer, yet have a lower overall batting average than Jeter for the entire summer? Find out in this talk. Bring your calculator!

44. Discovering Proofs through Geo Sticks (9-12)

Use Geo Sticks to discover Euclidean Geometry Proofs of congruent triangles, to include SSS, SAS, ASA, AAS, & HL. (This will also show the reason why SSA does NOT work for proving triangles congruent.) This presentation is hands-on!

45. Exploring the CC: Algebra I Activities (9-12)

How will the Common Core standards affect your Algebra I pedagogy and assessment? We will also delve into several activities that align with the Common Core

standards for Algebra I.

46. One Fantastic Problem after the AP Calc Exam – Lockers (9-C)

Jim Matthews

Siena College

46. One Fantastic Problem after the AP Calc Exam – Lockers (9-C)

This non-traditional locker problem will connect some probability, combinatorial reasoning, and calculus. The result will be stunning! Great anytime, but recommended for after the AP exam.

47. Flip or Flop (9-12)

Soowook Lee

Roslyn HS

What do you think about flipping your classroom? During this talk, we will talk about various ways we can utilize media resources and share our successes and

failures incorporating media.

48. Teaching Statistics through Data Analysis.(9-C)

Salvatore J. Petrilli, Jr.

Adelphi University

Statistics is one of the most useful branches in mathematics; however, how can we get students engaged in it? Data Analysis! Participants will learn how to incorporate engaging and student-centered research projects into the classroom.

incorporate engaging and student-centered research projects into the classroom.

49. A Non-traditional Locus of a Circle Definition. (10-C) Paul E. Schwiegerling SUNY Buffalo

Instead of the traditional one fixed point locus for the definition of a circle, it will be established that there is also a two fixed point definition.

50. A Glimpse into the National Museum of Mathematics.(General)

Lucy Landesburg & Debbie Tyler

Nassau Community College
Take a virtual tour of MoMath, the coolest thing that ever happened to math! Consider a field trip where students will be inspired by the wonders of mathematics!