



# 2014 Math Institute

Friday, September 19, 2014

8:00 am – 4:00 pm

Hamline University – Anderson Center  
774 Snelling Ave. N., St. Paul, MN 55104

# atlas



This ABE training opportunity is being offered in conjunction with the MN Department of Education and the ATLAS program's MN Numeracy Initiative (MNI) at Hamline University. CEU's indicating attendance will be provided.

**Would you like to advance your numeracy instruction for adult learners?** Do you have questions about the **CCRS** (College and Career Readiness Standards)? Looking for **interactive workshops** where you can learn more about them? The **2014 Math Institute** will introduce the mathematics portion of the CCRS and guide participants in using the CCRS as a tool to meet the increasingly rigorous demands of ABE math. (More on CCRS: <http://lincs.ed.gov/publications/pdf/CCRStandardsAdultEd.pdf>)

## AGENDA

**8:00** - Registration and Continental Breakfast

**8:30-9:00** - Welcome and Conference Overview

**9:00-12:15** - General session: Exploring the Standards for Mathematical Practice of the Career and College Readiness Standards (CCRS) - *Cynthia Bell, Assistant Director for the New York State Education Dept Regional Adult Education Network*

Many numeracy leaders consider the Standards for Mathematical Practice to be the heart of the numeracy component of the Career and College Readiness Standards for Adult Education. These Mathematical Practices describe the habits of mind that mathematics educators at all levels should seek to develop in their students; they involve such skills as complex problem solving, reasoning and proof, modeling, precise communication, and making connections. In the large-group morning session of Math Institute, we will be guided by the inspiring adult education specialist from New York, Cynthia Bell, as she leads us through an exploration of the eight Mathematical Practices. Be ready to delve into the meaning of the practices, engage in hands-on activities that model the practices, and consider how they could be used as tools for responding to the increasingly rigorous demands of ABE math.

**12:15-1:00** - Lunch

**1:00-2:15** – Concurrent Session 1: Unpacking One Specific Math Standard

**2:30-3:45** – Concurrent Session 2: Unpacking Another Specific Math Standard

### ***Concurrent Session Options (you will register for 2): \****

1. CCRS Level B: Word Problems, Operations, and Patterns
2. CCRS Level C: Interpreting Multistep Numerical Expressions
3. CCRS Level C: Interpreting Algebraic Expressions
4. CCRS Level D: Functions and Their Graphs
5. CCRS Level E: The Reasoning of Solving Equations
6. CCRS Level E: Operations with Polynomials

**\* Pre-registration for concurrent sessions required; see workshop descriptions on back page!**

## Workshop Information

- **Cost:** \$30/person (**FREE for new MNI-15 cohort members**)
- **MAPS & DIRECTIONS:** Online at <http://www.hamline.edu/about/locations.html> (look for "Saint Paul Campus" at the top)
- **Travel scholarships:** If you are traveling over 50 miles to attend the Institute, you may apply for a travel scholarship (for mileage and hotel expenses) from ATLAS. Information will be posted on the ATLAS Calendar of Events.

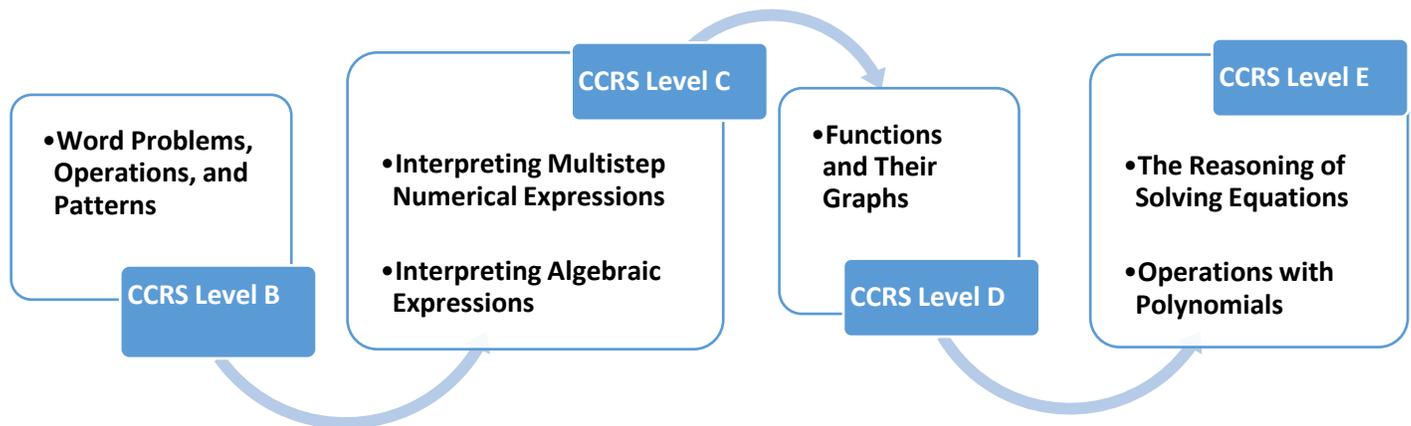
## Registration

- You must **register for 2 specific workshops** in advance; please note that we are unable to accommodate any switching on the day of the Institute. Note: Space is **limited to 25 participants per workshop**; all workshops are **REPEATED**.
- **Register online at [www.atlasABE.org](http://www.atlasABE.org)** (click on the **purple Calendar of Events** bar at the top; then use the calendar to navigate to the event).
- **Registration deadline: **FRI. SEP. 12****; registrations accepted on a first-come, first-served basis.

## Options for Math Institute 2014 afternoon sessions, arranged by level.

*Choose two of the six workshops! All workshops will be repeated.*

*For more details about each session, see the text below the image.*



### All sessions will investigate:

What does the standard mean? How does it fit into the sequence of learning math? What could it look like in my classroom?

- **Word Problems, Operations, and Patterns** (presenter: Amy Vickers)  
*Level B CCRS: Solve problems involving the four operations, and identify and explain patterns in arithmetic.*  
This session will highlight rigor at beginning math levels, with an emphasis on foundational skills with the four operations.
- **Interpreting Multistep Numerical Expressions** (presenter: Abby Roza)  
*Level C CCRS: Write and interpret numerical expressions.*  
This standard is appropriate for a range of students - from those who are familiar with basic addition and subtraction and who are familiar with or learning multiplication to more advanced students needing to strengthen their understanding of the role of parentheses in algebra.
- **Interpreting Algebraic Expressions** (presenter: Amber Delliger)  
*Level C CCRS: Apply and extend previous understandings of arithmetic to algebraic expressions.*  
This session will emphasize making meaning of expressions that contain numbers and/or variables and explore related vocabulary.
- **Functions and Their Graphs** (presenter: Andy Albee)  
*Level D CCRS: Use functions to model relationships between quantities.*  
Functions tell a story. In this session, uncover that story seen as a table or a graph or described in a situation.
- **The Reasoning of Solving Equations** (presenter: Rebecca Strom)  
*Level E CCRS: Understand solving equations as a process of reasoning and explain the reasoning.*  
In this session, we will begin with reviewing the order of operations and explore how it applies to solving algebraic equations. We will explore the reasoning process in each step as we work toward a solution that we can defend.
- **Operations with Polynomials** (presenter: Cynthia Bell)  
*Level E CCRS: Perform arithmetic operations on polynomials.*  
Through working with operations and polynomials, this session will emphasize coherence, the connection of this standard to related standards.