



S²TEM Centers SC

Solutions in Science, Technology, Engineering & Mathematics Education

Announcing exclusive S²TEM Centers SC online courses:

Courses offered:

- Algebra I: Content and Connections
- Understanding Measurement in the Elementary Classroom: Teaching from a Student-Centered Perspective (PreK- 5th Grade)
- Understanding Geometry: Teaching from a Student-Centered Perspective (PreK-8th Grade)
- Content and Applications for Middle Level Mathematics with a Student-Centered Perspective (Grades 6-8)

Target Audiences: PK- 12 mathematics educators

Credit Hours:

3 hour(s) of recertification or 60 renewal credits

3 hours graduate credit available for an additional \$165 through Adams State University

Course Facilitation and Duration:

Courses are moderated by S²TEM Center SC Education Specialists and run for 11 weeks.

Target Start and End Dates: February 13 – May, 7th, 2017

Cost:

\$250 payable with Visa or Mastercard, money orders or echecks

Group rates start at 5 enrollees from the same organization *5-9 participants: \$225 per person

*10-14 participants: \$200 per person *15-19 participants: \$175 per person *20-30 participants:

one flat fee of \$2500

Use the Link or QR Code to Register: [Winter 2017 Courses](#)



For further information: onlinecourses@s2temsc.org

What teachers are saying about our online courses:

"I have found the online format nice, and enjoy being able to read and submit things on my own schedule throughout the week. Already, I have learned so much about what kind of mathematical thinker I am and how I can change my way of thinking to arrive at solutions in a much more understandable way. I look forward to this carrying over into my style of teaching math in the classroom."

Jennifer Sanders- Edgefield, SC

"I have used what I have learned already in my own [Special Education] classroom this year. I plan to use it next year as I develop my lesson plans for the future. The information encourages me to continue taking classes in this format. I believe the learning I experienced is extremely important and completely operational when teaching different levels of students."

Amy Nelson-Beaufort, SC



Online Course Offerings: Winter/Spring 2017
February 13 – May 7, 2017

Algebra I: Content and Connections

Target Audience:

Algebra I Teachers & Coaches

Dates of Course:

February 13 – May 7, 2017

Text: *Making Sense of Algebra: Developing Students' Mathematical Habits of Mind*
ISBN: 978-0-325-05301-1

Authors: E. Paul Goldenberg, June Mark, Jane M. Kang, Mary K. Fries, Cynthia J. Carter, and Tracy Corder

Course Description:

Algebra I is a dynamic course full of content and connections – building on connections within the middle school mathematics curriculum as well as providing connections and prior knowledge needed for future high school courses. Algebra I is foundational. This course will offer insights and stretch participants to make those connections, both within Algebra I and outside the Algebra I content. Through content connections, this course will address meaningful use of symbols, mindful manipulation, reasoned solving, connecting Algebra with Geometry, and linking expressions and functions.

Understanding Measurement in the Elementary Classroom: Teaching from a Student Centered Perspective

Target Audience:

PreK - 5th Grade Mathematics Teachers & Coaches

Dates of Course:

February 13 – May 7th, 2017

Text: GRADE BAND SPECIFIC

*Volume I: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for **Grades PreK – 2**. ISBN: 0-13-282482-5*

*Volume II: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for **Grades 3 - 5**. ISBN: 0-13-282487-6*

Authors: John A. Van de Walle, Jennifer M. Bay-Williams, LouAnn H. Lovin, and Karen S. Karp

Course description:

This online course is designed to aid teachers in reflecting on the major ideas of PreK-5 measurement, examining how students develop those ideas, and how they are connected across domains and grade levels. Student achievement and improvement are realized over time. The process begins with the early grades, PreK-2 and is further developed throughout the elementary school experience. In order to improve student achievement at all grade levels, in-depth mathematical understanding (of concepts, not algorithms) is crucial. Measurement concepts should begin early in students' learning as there are connections with measurement found in geometry, algebra, proportional reasoning, and fractions.

Each session takes an in depth look at different concepts in measurement. Videos are used to give participants valuable glimpses of students' mathematical thinking in progress. The videos provide an opportunity to see and hear children struggling to express their ideas and to understand the ideas of their peers. Math activities provide opportunities for participants to develop and refine their own mathematical thinking. Related research gives the participants a deeper understanding of how to build conceptual understanding in measurement. Participants will examine the State Standards as they relate to measurement concepts and how it will impact their teaching.

Content and Applications for Middle Level Mathematics with a Student Centered Perspective

Target Audience:

6th – 8th Grade Mathematics Teachers & Coaches

Dates of Course:

February 13 – May 7th, 2017

Text: *Volume III: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for Grades 6 - 8.* (TSCM). ISBN: 0-13-282486-8

Authors: John A. Van de Walle, Jennifer M. Bay-Williams, LouAnn H. Lovin, and Karen S. Karp

Course description:

This course is designed to aid teachers in reflecting on the major ideas of 6-8 mathematics and examining how students develop those ideas. During the course, participants will explore the State Standards as these relate to concepts in geometry, statistics, and probability.

Measurement falls under the heading of geometry in the middle grades. Whereas geometry, for example, develops understanding and eventually formulas for area and volume and more, measurement helps describe shapes and plays a significant role in geometric properties.

One attribute of data concerns statistics and graphs which help answer questions about our world. This description is quite often made possible by measures. Measures of statistics assist in understanding probabilities of given situations as they apply to the world around us.

This course takes a look at how geometric concepts, data and statistics all use mathematics to understand our world better. Each session takes an in depth look at different concepts in measurement, geometry, statistics and probability. Videos are used to give participants valuable glimpses of students' mathematical thinking in progress as well as insight into the teacher's thinking and role. The videos provide an opportunity to see and hear children struggling to express their ideas and to understand the ideas of their peers. Math activities provide opportunities for participants to develop and refine their own mathematical thinking. Related research gives the participants a deeper understanding of how to build conceptual understanding. Participants will examine the State Standards as they relate to the middle school concepts and how it will impact their teaching.

Learning will be applied to a chosen or created performance task. The performance task will be the vehicle used to culminate learning.

Understanding Geometry: Teaching from a Student Centered Perspective

Target Audience:

PreK – 8th Grade Mathematics Teachers & Coaches

Dates of Course:

February 13 – May 7th 2017

Text: GRADE BAND SPECIFIC

*Volume I: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for **Grades PreK – 2**.* ISBN: 0-13-282482-5

*Volume II: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for **Grades 3 - 5**.* ISBN: 0-13-282487-6

Volume III: Teaching Student-Centered Mathematics: Developmentally Appropriate Instruction for Grades 6 - 8. (TSCM). ISBN: 0-13-282486-8

Authors: John A. Van de Walle, Jennifer M. Bay-Williams, LouAnn H. Lovin, and Karen S. Karp

Course description:

This online course is designed to aid teachers in reflecting on the major ideas of K-8 geometry, examining how students develop those ideas, and how they are connected across domains and grade levels. Student achievement and improvement are realized over time. The process begins with the early grades, PreK-2 and is further developed throughout elementary and middle school. In order to improve student achievement at all grade levels, in-depth mathematical understanding (of concepts, not algorithms) is crucial. Geometric concepts should begin early in students' learning as there are connections with geometry found in measurement, algebra, proportional reasoning, and fractions.

Each session takes an in depth look at different concepts in geometry. Videos are used to give participants valuable glimpses of students' mathematical thinking in progress. The videos provide an opportunity to see and hear children struggling to express their ideas and to understand the ideas of their peers. Math activities provide opportunities for participants to develop and refine their own mathematical thinking. Related research gives the participants a deeper understanding of how to build conceptual understanding in measurement. Participants will examine the State Standards as they relate to the geometric concepts and how it will impact their teaching.