

CCSU
DEPARTMENT OF MATHEMATICAL SCIENCES
COLLOQUIUM

Friday, September 11
3:00 – 4:00 PM
Maria Sanford, Room 101

**IMPROVING MATHEMATICAL LITERACY
VIA ORDER OF OPERATIONS**

JEREMY BRIGHTBILL
CENTRAL CONNECTICUT STATE UNIVERSITY

Abstract: When experienced practitioners of mathematics see a polynomial equation, our minds automatically break it down into two expressions (the left and right-hand sides). Each expression is broken down into a sum of terms and each term into a product of factors, much as we break sentences down into words, and words into letters. We are able to perform this process of parsing because we have internalized the meaning of the order of operations. However, traditional instructional methodologies treat the order of operations as a purely computational procedure--performing the steps indicated by the acronym PEMDAS--with no emphasis on parsing. From this start, some students will intuitively develop the ability to parse, but those who do not will struggle to perform even the simplest algebraic manipulations. In this talk I will present an alternative methodology, treating the order of operations as a method of reading and understanding mathematical expressions.

To join us online use the following link: <https://ccsu.webex.com/meet/gotchey>
For further information: gotchevi@ccsu.edu; 860-832-2839; <http://mathcolloquium.sites.ccsu.edu/>