

ROXANNE BACK

Florida Southern College
111 Lake Hollingsworth Dr.
Lakeland, FL 33801
863-680-4982

4022 Crestwood Dr.
Valrico, FL 33596
262.361.2523
rback@flsouthern.edu

EDUCATION

Ph.D. Mathematics, December 2010
Auburn University, Auburn, AL

B.A. Mathematics, May 1999
Florida Southern College, Lakeland, FL

ACADEMIC APPOINTMENTS

Florida Southern College , Lakeland, FL Associate Professor of Mathematics	2015 - Present
Mount Mary University , Milwaukee, WI Department Chair Mathematics Assistant Professor	2008 - 2015 2006 - 2015
Auburn University , Auburn, AL GTA	2001 - 2006
Southern Union State Community College Instructor	2002 - 2004

COURSES TAUGHT

- Math for EC/MC Teachers I and II
- Number Theory
- Modern Geometry
- Modern Algebra
- Discrete Math
- Linear Algebra
- Elementary Statistics
- Contemporary Math
- Calculus I
- Calculus II
- Calculus III
- Pre-Calculus
- College Algebra
- Trigonometry
- Introductory Algebra
- Pre-Algebra
- Concepts of Math
- Probability and Statistics
- Fundamentals of Higher Mathematics
- Various Independent Studies
- Quantitative Reasoning

SCHOLARLY WORK

- **Number Riddles**, Published with Intel Education; November 2014
Integrating technology in the Pre-Algebra classroom by using virtual algebra tiles to teach equivalent expressions.
- **Math: Brain Games**, TEDx talk Marquette University, November 2013
- **K-2 Number and Base 10 Operations Module**, Editor; Summer 2014
Week-long program sponsored by the Wisconsin Institute of Mathematics.
- **The Menger Sponge Project**; May 2012-May 2013
Collaborative project with 16 schools to promote STEM education by constructing a 50,000 business card origami fractal.
- **Interactive Menger Sponge Exhibit** during STEM Fest at Discovery World in Milwaukee, Wisconsin; November 2013
- **K₄-e Designs with a Hole**, Dissertation under Dr. Dean Hoffman; December 2010

- **STACK Rubric** (Student Teaching Assessment of Content Knowledge), FIPSE Grant; 2010
Member of the statewide team to develop a rubric for pre-service teachers in mathematics content knowledge.

PRESENTATIONS and WORKSHOP FACILITATIONS

- ***Standards for Mathematical Practice in the Middle School Classroom***; Milwaukee Archdiocesan Convention; October 2014
- ***Ratio and Proportion Summer Academy***, Milwaukee Archdiocese; July 2014
- ***Expressions and Equations Module***, Wisconsin Institute of Mathematics; 2013, 2014
Week long program for middle school math teachers.
- ***CCSS Mathematics Implementation Workshop for the Archdioceses of Milwaukee***;
Grades K – 8; Alverno College, February 2013
High School; Cousins Center, March 2013
- ***The Wisconsin Menger Sponge Project***; May 2012, May 2013
Wisconsin Mathematics Council 44th & 45th Annual State Conference; Green Lake, WI
- ***K₄-e Designs on Complete Graphs with Holes***; March 2010
Southeastern Conference on Combinatorics, Graph Theory, and Computing; Boca Raton, FL,
- ***Discovering Patterns with Pascal***; March 2010
Workshop MMC
- ***Mayan Number System***; December 2009
Lake Denoon Middle School; Muskego, WI
- ***Origami, Conic Sections and Geometer's Sketchpad***; May 2009
Wisconsin Mathematics Council 41st Annual State Conference; Green Lake, WI
- ***Conic Sections and Geometer's Sketchpad***; May 2008
Wauwatosa East High School
- ***Does Your Vote Really Count?***; April 2008
In honor of Mathematics Awareness Month; Mount Mary College

SELECTED CONFERENCES and WORKSHOPS

- ***Design Thinking Workshop***; GE Healthcare Campus Waukesha, WI; August 2014
Four day retreat focusing on Design Thinking and the kick off to Mount Mary's Creative Campus Initiative.
- ***Math Proficiency for Every Student***; December 2011, December 2012
Wisconsin Math Council; Oconomowoc, WI
- ***POGIL (Process Oriented Guided Inquiry Learning)***; November 2012
Introductory Workshop; Mount Mary College
- ***Creative Milwaukee at Work Summit***; September 2012
Milwaukee Institute of Art and Design
- ***Wisconsin Mathematics Council Annual State Conference***; Green Lake, WI,
May 2008, 2009, 2010, 2011, 2012
- ***The Art and Science of Teaching with the CCSS***; March/April 2012
Workshop with Tony Frontier; Waukesha, WI
- ***Southeastern Conference on Combinatorics, Graph Theory, and Computing***; Boca Raton, FL,
March 2001, 2002, 2003, 2010
- ***Liberal Education and Wisconsin's Promise: The Teaching, Learning, and Assessment of Liberal Education Outcomes***; De Pere, WI, Nov. 2007
- ***Quality Matters sponsored by WDPI***; Wisconsin Dells, WI, Nov. 2006
- ***MIGHTY XLI Midwest Graph Theory Conference***; MTSU, Murfreesboro, TN, Sept. 2005

AWARDS and DISTINCTIONS

- Judge of Student Presentations; MAA Math Fest, Madison WI, 2012
- Referee for Papers submitted to The Pentagon (undergraduate math journal); 2009- present
- Member: Math Association of America; 2008- present
- Member: Wisconsin Mathematics Council; 2008 – present
- Judge of Student Papers for National KME Convention; April 2007
- MMC Mini-grant; Fall 2006, Spring 2007
- *ETS Recognition of Excellence Award*; Fall 2006
- Fellowship: University Wisconsin Milwaukee; 2000
- *B.P. Reinsch Mathematics Award*; Florida Southern College, 1999

COLLEGE and COMMUNITY SERVICE

- Livebinder of CCSSM resources for Institutes of Higher Education; January 2014
Developed with a team through a Wisconsin DPI grant
- Math Content Guidelines Leadership Team Member, DPI; March 2013 – Present
Write and review content requirements for teaching certification in Wisconsin.
- Camp Invention; Director, Sullivan, WI; Summer 2013
STEM day camp for students in grades 1-6.
- Parents and Teachers Helping Students; Officer, Sullivan, WI; 2008-Present
- Connect-Ed Contact with Pius XI High School and St. Joseph High School; 2007-present
Program to directly receive college credit for AP math courses.
- Advisor of Border Awareness Experience; Juarez, Mexico, Jan. 2007
Accompanied seven students to a week-long immersion into border culture.
- Corresponding Secretary and Advisor; Kappa Mu Epsilon WI Alpha Chapter, 2006-present