

**DR. KARA L. SHAVO**  
klshavo@presby.edu

**EDUCATION:**

University of South Carolina, Columbia, SC  
Ph.D., Discrete Mathematics, 1995  
Dissertation: Matching Extension in the Powers of Graphs

Michigan State University, East Lansing, MI  
M.S., Mathematics, 1989

University of Toledo, Toledo, OH  
B.Ed., Mathematics, 1987

**PROFESSIONAL EXPERIENCE:**

Associate Professor, 2007-present  
Presbyterian College, Clinton, SC  
Taught all levels of undergraduate mathematics, advised students, and served on numerous committees  
Mathematics Department Assessment Coordinator  
Organized Presbyterian College Assessment Week, 2012, and Assessment Day, 2013  
Advised students' Senior Capstone Projects and Presentations 2011 – present  
Member of successful NetVUE grant-writing team, 2013

Assistant Professor, 1999-2002 and 1996-1998  
Presbyterian College, Clinton, SC

Assistant Professor, 1998-1999  
Mercer County Community College, Trenton, NJ

Assistant Professor, 1995-1996  
University of Montevallo, Montevallo, AL

**COURSES TAUGHT:**

Abstract Algebra  
Analysis  
Beginning & Intermediate Algebra  
Calculus I, II, III, & IV  
College Algebra  
Differential Equations

Discrete Mathematics  
Elementary Math Methods  
Finite Mathematics  
Freshman Seminar: Mathematics and the Fabric Arts  
Graph Theory  
Launching Vocation, Leadership, and Service  
Linear Algebra  
Mathematics for the Liberal Arts  
Modern Mathematics for Teachers  
Senior Capstone in Mathematics  
Senior Capstone for Teaching in Mathematics  
Transition to Advanced Mathematics

**NEW COURSES DEVELOPED:**

Graph Theory  
Discrete Mathematics  
Mathematics for the Liberal Arts  
Modern Mathematics for Teachers  
Elementary Math Methods  
Senior Capstone for Teaching in Mathematics  
Freshman Seminar: Math and the Fabric Arts  
Launching Vocation, Leadership, and Service course for Sophomores

**STUDENT RESEARCH & ACTIVITIES:**

Supervised student Lena Witzmann on a research project and presentation at PC Honors Day entitled, *How Close are we Really? A Study of the PC Acquaintance Graph*, 2008-2009.

Supervised students Erica Deahl and David Dempsey on Senior Capstone Presentation, *The Traveling Salesman Problem: Its History, Theory, and Applications*, 2011.

Supervised students Caroline Burch, Stephen Kinzler, Kenny Bryant, and Buck Mosteller on Senior Capstone Presentation, *Food Webs: Their Theory and Applications*, 2012.

Supervised students Edward Snead and Melinda Vasconcello on Senior Capstone Presentation, *The Hungarian Method*, 2013

Supervised students Caroline Lauren Bookout, Joy Eckert, and Chandler Knox on Senior Capstone Presentation, *Ramsey Theory: Is Complete Chaos Possible?*, 2014

Faculty Advisor to new student organization: the Secular Student Alliance at Presbyterian College, 2011-2013

Organized semiannual meetings of the Presbyterian College Women's Math Club 2012-present

**FUNDED WORKSHOPS:**

NSF funding to attend SQuaRE (Structured Quartet Research Ensembles) of the American Institute of Mathematics (AIM), Philadelphia, PA, August, 2014

NSF funding to attend REUF (Research Experiences for Undergraduate Faculty) Workshop, August 2013

**PUBLICATIONS:**

*Classifying Coloring Graphs*, submitted paper, June, 2015

*Matching Extension in the Powers of  $n$ -connected Graphs*. Journal of Graph Theory, Vol. 23, No. 4, 1996. (Cited in *Graph Factors and Matching Extensions*, Qinglin Roger Yu and Guizhen Liu, Higher Education Press, 2009.)

*A Result on Extendibility in the Powers of Graphs*, Journal of Graph Theory, Vol 56, No 1, pp. 1-22, Fall, 2007. (Cited in *Graph Factors and Matching Extensions*, Qinglin Roger Yu and Guizhen Liu, Higher Education Press, 2009.)

**CONTRIBUTED PAPERS:**

*Godel's Incompleteness Theorems and the Death of the Theory of Everything*. Meetings of the Mathematical Association of America, Southeastern Section, Tuscaloosa, GA, April, 2011.

*Classifying Coloring Graphs*. Meetings of the Mathematical Association of America, Southeastern Section, Cookeville, TN, March, 2014.

**REFEREED PAPER:**

Referee for the professional journal *Graphs and Combinatorics*, Springer-Verlag Tokyo, 1998.

**INVITED TALKS:**

*Induced Subgraphs of Coloring Graphs*, Joint Mathematics Meetings (JMM) of the American Mathematical Society and the Mathematics Association of America, San Antonio, TX, January, 2015

*Godel's Theorem and the Death of the Theory of Everything*, Guest Lecturer at the Guy Jacobson Memorial Mathematics Colloquium, February, 2012.

*Party Problems and the Graphs that Solve Them.* Presbyterian College Student Chapter of the Mathematical Association of America, 1997.

*Matching Extension and a Nice Generalization.* University of South Carolina Discrete Mathematics Seminar, March, 1995

*Matching Extension in the Powers of Graphs.* College of Charleston Mathematics Colloquium, December, 1994.

**HONORS & VOLUNTEER ACTIVITIES:**

Food Not Bombs volunteer. Fall, 2015 - present.

Prepare and serve food to homeless and other hungry folks in Columbia, SC every Sunday afternoon.

Columbia Film Society and the Nickelodeon Theater, Member/Volunteer, 1990-present. Sell tickets and concessions most Saturday evenings.

Programming Director, Nickelodeon Family Film Series, fall 2008-2010

Bedford High School Hall of Fame, Temperance, MI, 2005 Inductee

CHAMPS (Communities Helping Adolescents Mature Positively & Successfully) Math Day Volunteer, 2007-2012

Volunteer Mathematics Tutor, Keenan High School, Columbia, SC, Spring, 2011

Meals on Wheels of Columbia volunteer, 1999-2001, and 2008

Brookwood Swim Club, Temperance, MI, Head Swim Team Coach.

Coached team of over 100 boys and girls, ages 5-18, to four consecutive league championships, 1984-1987