CURRICULUM VITA OF Matthew Pascal, Ph.D.

Address: Dept. of Natural Sciences and Engineering Tech.
Point Park University
201 Wood St.
Pittsburgh, PA 15222

(412) 392-3892

Email Address: mpascal@pointpark.edu

EDUCATION

Ph.D., Mathematics Education: American University, Washington, DC (May, 2006); Dissertation: "*No Child Left Behind* in the Mathematics Classroom" Advisor: Mary Gray, Ph.D.

M.S., Mathematics: University of Pittsburgh, Pittsburgh, PA (March, 2000); Thesis: "Different Types of Adaptation Affect Synchrony Differently" Advisor: G. Bard Ermentrout, Ph.D.

B.S., Mathematics (minor: Physics): Duquesne University, Pittsburgh, PA (May, 1996)

PROFESSIONAL EXPERIENCE

Point Park University (Pittsburgh, PA) Department of Natural Sciences and Engineering Technology
    Tenure-track Assistant Professor: May 2011 - present

West Virginia University (Morgantown, WV) Mathematics Department
    Tenure-track Assistant Professor: July 2006 – May 2011

Towson University (Towson, MD) Department of Mathematics
    Tenure-track Assistant Professor: August 2005 – July 06

American University (Washington, DC) Department of Mathematics & Statistics
    Full-time Instructor of Mathematics: August 2005 – August 2005

Northern Virginia Community College (Loudoun Campus: Sterling, VA)
    Full-time Instructor of Mathematics: August 2000 – August 2003
    Adjunct Faculty: August 1999 – July 2000

University of Pittsburgh (Pittsburgh, PA) Department of Mathematics
    Teaching Assistant: August 1997 - December 1998
    Adjunct Faculty: June 1999 – July 1999

Montgomery College (Takoma Park, MD)
    Adjunct Faculty: August 1999 – Fall 2000

Maryland College of Art & Design (Silver Spring, MD)
    Adjunct Faculty: Spring 2000

Anne Arundel Community College (Arnold, MD)
    Adjunct Faculty: August 1999 – May 2000

TEACHING BACKGROUND (all post-secondary)

Teaching Interests and Specialties:
    Developmental Mathematics
    Trigonometry
    Algebra
    Statistics
    Calculus I – III
    Differential Equations
    Proof/Logic
    Mathematics Education

Course Coordinator, Math 128: Trigonometry (WVU), 2006 – 2011.

RESEARCH INTERESTS AND SPECIALTIES:

> Education Legislation (Mathematics)
> Mathematics Education
> Psychology of Mathematics Education
> Assessment

PUBLISHED WORKS

Peer-reviewed Professional Papers:

Acker, K., Gray, M., Jalali, B., and Pascal, M., "Homeschooling and Mathematics," *NOTICES of the American Mathematical Society*, 59(4), April 2012.

Pascal, M., "The Push to Pass: Merits of Intervention in Precalculus Mathematics," *The MathAMATYC Educator*, 3(1), September 2011.

Pascal, M., and Gray, M., "Commentary on Legislation: A Mathematical Perspective," *NOTICES of the American Mathematical Society*, 58(1), January 2011.

Pascal, M., and Bernstein, J. "The Killer Problem" Proceedings of the thirty-second Annual Conference of the North American Chapter of the International Group for the Psychology of Mathematics Education. October 28 to 31, 2010

Shore, F., and Pascal, M. "The Dreaded 'Work' Problems Revisited: Connections from Basic Fractions to Calculus," *Mathematics Teacher*, 101 (7), 2008.

Ermentrout, G. B., Gutkin, B., and Pascal, M., "The Effects of Spike Frequency Adaptation and Negative Feedback on the Synchronization of Neural Oscillators," *Neural Computation*, 13(6), 2001.

Book Chapters:

Kalman, D, Pascal, M., and Stallings, V. (2005). "Learning Outcomes Assessment: Stimulating Faculty Involvement Rather than Dismay," in *Supporting Assessment in Undergraduate Mathematics*. Mathematics Association of America (MAA), Washington, D.C.

Books:

Pascal, M., (2009). "Trigonometry: A Course Manual," Kendall-Hunt, Dubuque, IA.

OTHER ACADEMIC WORKS

Presentations:

"Homeschooling and Mathematics Education: Trends, Results, and Trajectories," WVU Mathematics Education Seminar (Part of the WVU Mathematics Department Colloquium). April 20, 2012 at WVU, Morgantown, WV.

"The Sea Island Problem," WVU Mathematics Symposium, November 4, 2010 at WVU, Morgantown, WV.

"The Killer Problem," The 32nd Annual meeting of the North American Chapter of The International Group for the Psychology of Mathematics Education, October 29, 2010 in Columbus, OH.

"The Game of EQUATIONS," WVU Mathematics Symposium, November 15, 2007 at WVU, Morgantown, WV.

"A Geometric Series Approach to the Work Problem." WVU Mathematics Symposium, October 26, 2006 and October 30, 2008 at WVU, Morgantown, WV.

"A Multi-Stage Assessment of *No Child Left Behind* in the Middle School Mathematics Classroom." MAA Section Meeting (MD/DC/VA), April 6, 2006 at Loyola College, Baltimore, MD.

"Ancient Navigation and Surveying." Sonya Kovalevsky Day. American University, 3/2/04.

"The Truth Hurts: Using ancient astronomical models in the mathematics classroom." MAA Contributed Paper Session on The Truth in using the History of Mathematics in Teaching Mathematics. 2004 Joint eetings of the MAA & AMS. 1/8/04 in Phoenix, AZ.

Papers submitted for Publication:

Pascal, M., and Shore, F. "The Hard Way: Using Convergent Geometric Series to Solve a Classic Algebra Problem." Submitted to *The MathAMATYC Educator*.

Works in Progress:

Pascal, M., Acker, K., Gray, M., and Jalali, B., "Home Schooling: A Quantitative and Qualitative Analysis."

PROFESSIONAL SERVICE & DEVELOPMENT

Membership in Professional Associations:

National Council of Teachers of Mathematics (NCTM)
Mathematical Association of America (MAA)

MAA Panel Selection Committee

MAA Workshop in the Emerging Scholars Program, July 2008

MAA Workshop on Supporting Assessment in Ungergraduate Mathematics, 2005 – 2006 in Atlanta, GA, High Point, NC, and San Diego, CA.

Evaluation of Manuscripts:

Trigonometry, 2nd ed. By Cynthia Young (Wiley & Sons)

PROFESSIONAL SERVICE TO THE PUBLIC

National or International Scope:
MAA Science Policy Committee: Meetings, April 6 – 8, 2008

Statewide Scope:
Organizer, WVU High School Math Symposium , 2007 - 2010

UNIVERSITY SERVICE

Point Park University Student Affairs Committee

WVU Mathematics Department Committees:
Graduate Selection Committee
Support in the Classroom Committee

WVU College and University Committees:
Academic Standards Committee

ONGOING RESEARCH

"A Major Experiment," a qualitative analysis of a group of mathematics majors held accountable for their understanding of a new area of mathematics.

"Cognitive Function as a Predictor for Mathematics Achievement," a quantitative study of the predictability of performance on a mathematics placement exam by results of psychology assessments. With Joshua Bernstein (Chatham University)

"Relating Two Conceptualizations of the Arithmetic Mean," a multi-faceted study of the connection between two well-documented conceptualizations of the arithmetic mean (average). With Mark Marnich (Point Park University).