

**VITA
of
TOM M. GIAMBRONE**

PERSONAL INFORMATION

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EDUCATIONAL BACKGROUND

Ed.D. received from State University of New York at Buffalo in Mathematics Education, Sept. 1983.

M.Ed. received from State University of New York at Buffalo in Mathematics Education, 1976.

B.A. received from State University College of New York at Geneseo in Mathematics, 1973.

A.A. received from Genesee Community College in Math/Science, 1970.

Master of Arts Comprehensive Examination in Mathematics from State University of New York at Buffalo, passed March 1979.

Additional study at University of Georgia at Athens, Fall 1979, Spring 1980.

NYSED Permanent Certification Mathematics 7-12 Fall 1976.

Mac OSX Server level 200 June 2006.

RESEARCH INTERESTS

Curriculum Development Using Digital Video in Instruction
Use of Technology in Mathematics Instruction.

TEACHING EXPERIENCE

Buffalo State College. August 1990 - 2019. Emeritus (2019 – present), Professor of Mathematics. Chair of department (Summer 98 – Spring 01.), Acting Chair (Fall 94), Chair of the Graduate Faculty (Fall 91-Fall 2006), Chair Protem of Department (Fall 92 - Fall 94), Coordinator of Student Teachers (Fall 91-Fall 95), and Chair of the Secondary Intermediate Unit (Fall 92 - Fall 94). Teaching duties include: Supervision of student teachers and teaching undergraduate mathematics and mathematics education courses for prospective secondary and elementary school teachers and graduate courses in mathematics education.

Indiana University of Pennsylvania (IUP). August 1982 - August 1990. Associate Professor of Mathematics, Graduate coordinator of program "Mathematics for Elementary School Teachers." Chair of Elementary Mathematics Education Committee. Teaching duties include: teaching graduate mathematics education courses for elementary and secondary school teachers, undergraduate courses for preservice elementary school teachers and other undergraduate mathematics courses.

CEMREL, Inc. - Comprehensive School Mathematics Program (CSMP) August 1980 - August 1982. Research and Development Specialist. Teaching duties included mathematics instruction in fifth and sixth grade classes and conducting in-service teacher training workshops.

University of Georgia at Athens. Fall 1979 - Spring 1980. Instructor of field-based elementary education. Duties included instruction of mathematics methods course, instruction in elementary grades, and supervision of prospective elementary teachers.

Erie Community College. 1978-79. Instructor in the Mathematics Department (Part-time). Taught lower level mathematics courses.

State University of New York at Buffalo. 1977 - 1979. Assisted in the teaching of Methods of Teaching Secondary School Mathematics (Fall 1977, Fall 1978), Problem Solving/Problem Posing (Fall 1978), Seminar in Mathematics Teaching (Spring 1979). These courses are a part of the SUNY at Buffalo Mathematics Education Program for secondary school teachers.

Pembroke Central School. 1973 - 1978. Mathematics Teacher in grades 7-9. Teaching assignments included classes with learning disabled children, problem children, as well as normal teaching assignments. In addition, I was assigned several exceptionally talented students on an independent study basis in grades 10-12.

Genesee Community College. Fall 1976. Instructor in the Mathematics Department (Part-time). Taught a pre-calculus course on location (Attica Correctional Facility).

SPECIAL AWARDS

New York State Mathematics Educators Hall of Fame. Inducted 2019.
Research Foundation Buffalo State College Million Dollar Club Award 2000-2005
Teacher of the Year - Pembroke Central School, 1978.
Who's Who for Junior American Colleges, 1970.

INVITED SPEAKING ENGAGEMENTS

“Reflective Mediation Through Use of Technology .” Presented poster session at the Society for Information Technology & Teacher Education International Conference Phoenix, AR, USA, March 1-6, 2005.

“Technology = Access” Presented poster session at the Society for Information Technology & Teacher Education International Conference Atlanta, GA, USA, March 1-6, 2004.

“Best Practices in Mathematics Education” with R. Frazita presented to the TAC coordinators meeting Syracuse NY , April 26, 2001.

“Technical Assistance Center”with R. Frazita and M. Meger, presented at the Urban Education Conference sponsored by Center for Excellence in Urban and Rural Education. May 17th. Buffalo State College.

“Technology and Models for the Upper Primary Grades” Full week presentations. Cray Academy. Chippewa Falls, WI. Summer 96.

“More of the Three C’s” Full week presentations. Cray Academy. Chippewa Falls, WI. Summer 95.

“TI Explorer Calculator Activities and Probability Models for the Middle School” presented at the Annual Meeting of Wisconsin Teachers of Mathematics. Green Lake, WI April 94.

“Problem Solving with Fractions” and “ The Other Arithmetic - The Kind You Use Most of the Time.” presented at the Annual Meeting of Wisconsin Teachers of Mathematics. Green Lake, WI April 93.

“What Does an Oak Leaf Have to Do With Using Technology to Teach Mathematics in the Elementary School” and “Using a Goose, a Witch and a Castle to teach Mathematics” and “Using Technology to Achieve the Standards” present at

Teaching with Technology conference sponsored by: WTC, MAMC, MECA, and WISTE. Milwaukee, WI Feb. 93.

"What Are My Chances That My Students Will Find Mathematics Exciting?" Two full week presentations. Cray Academy. Chippewa Falls, WI. Summer 91.

"Making Sense of Number Sense" presented at the Annual Meeting of School Science and Mathematics Association. Cincinnati, OH . Fall 90.

" Probability for the Middle Grades: A Tale of a Fortune Teller" presented at the NCTM midwestern regional meeting. Madison, WI. Fall 90

"Computers, Calculators and Children" Two full week presentations. Cray Academy. Chippewa Falls, WI. Summer 90.

"Discovery, Problem-Solving, and Computers in the Middle Grades Mathematics Classroom." Full week presentation. Cray Academy. University of Wisconsin at Eau Claire. Eau Claire, WI. Summer 89.

"Project ExCELS: Discovery, Problem Solving and Computers in the Mathematics Curriculum." - a curriculum study group session. NCTM National Meeting, Orlando, FL, April 1989.

"Discovering Mathematics with a Computer." NCTM North Central Regional Meeting, Omaha, NE, March 1989.

"Software Lessons from Project ExCELS." NCTM North Central Regional Meeting, Omaha, NE, March 1989.

"Helping Teachers Use the Computer in the Mathematics Classroom." NCTM Western Regional Conference, San Jose, CA, February 1989.

"Computers in the Teaching of Mathematics: Project ExCELS." NCTM Southwestern Regional Meeting, Baton Rouge, LA, November 1988.

"Project ExCELS: Teachers Using Computers to Teach Mathematics." NCTM Central Regional Conference, St. Louis, MO, October 1988.

"Why You Should Steal A Computer for Your Classroom." Secondary Section of the ARIN Regional Teacher Conference, Elderton, PA, October 1988.

"How Do Calculators Figure in the Curriculum." Elementary Section ARIN Regional Teacher Conference, Homer City, PA, October 1988.

"Can the Computer Make You a Better Teacher? " Mathematics Council of Western Pennsylvania, Spring 1987.

"Teaching Logical Thinking in Secondary School." NCTM National Meeting, Washington, DC, Spring 1986.

"Teaching Functional Concepts with a Microcomputer." NCTM Midwestern Regional Meeting, Columbus, OH, Fall 1985.

"Can You Make this Function Wiggle?" NCTM Eastern Regional Meeting, Montreal, Canada, Fall 1985.

"Geometry with Mirrors." NCTM Midwestern Conference, Dekalb, IL, Spring 1984.

"Designing a Remedial Program" presented to ARIN superintendents meeting, Fall 1984.

"Teaching Logical Thinking at the Primary Level." NCTM Midwestern Conference, Indianapolis, IN, Fall 1982.

"Problem Solving and Problem Posing." Illinois Council of Teachers of Mathematics, Southwestern meeting, Edwardsville, IL, Spring 1982.

"Problem Solving in the Elementary School." Lexington Council of Teachers of Mathematics, Spring 1981.

"Understanding Mathematics: What is it?" NCTM Midwestern Conference, Marquette, MI, Fall 1980.

"Math and ____." The Fourth Annual Conference, RCDPM, Amherst, NY, Fall 1979.

"Pythagoras on the Geoboard." Michigan Conference, MCTM, Marquette, MI, Fall 1979.

"Understanding: The Educational Smaug." North Carolina Association of Independent Schools, Charlotte, North Carolina, Fall 1979.

"Induction in the Classroom." Michigan Conference, NCTM, Ann Arbor, Michigan, Fall 1978.

CURRICULUM DEVELOPMENT

CEMREL, Inc. - Comprehensive School Mathematics Program. August 1980 - 1982.
Research and Development Specialist. Member of the development staff during the final revision of the elementary school curriculum.

Buffalo State College.- Revised masters of science degree “Masters in Secondary Mathematics Education.” This included development of three new courses by me and four additional courses by other members of the curriculum committee.

Indiana University of Pennsylvania - Revised masters of education program "Mathematics for Elementary and Middle School Teachers" and the masters of education in secondary mathematics. This included the development of six new courses.

PROFESSIONAL ORGANIZATIONS

National Council of Teachers of Mathematics.
Phi Delta Kappa

PROFESSIONAL ACTIVITIES

External Reviewer Liberal Arts Degree Niagara Community College February 1, 2013.

Referee and Courseware Reviewer, Mathematics Teacher. NCTM Publication (1978-Present)

External Reviewer Niagara Community College Mathematics/Science November , 2004.

Outside Program Reviewer for Niagara County Community College's Mathematics and Science Associate Degree Program. May 2005. May 2013

Presenter at Buffalo State College's Research and Creativity Day, Spring 2002, Spring 2003

Member of the BETA testing team for Logo 2000 - a publication of Terrapin Software

Mathematics Group Leader of MST Design Team - a committee of the New York State Education Department. This project is funded by National Science Foundation for the purpose of designing exemplary teacher education program standards for mathematics, science and technology. Spring 1993 - Spring 96.

Professional Laboratory at Orchard Park High School. Spent one entire school year teaching one class of 9th grades to demonstrate new techniques to faculty and using technology to teach mathematics. Fall 1995-96.

College Liaison for the Quality Teacher Program . A program funded by United Autoworkers and General Motors Corporation. This project places teachers in GM plants. I led a group in developing curriculum materials based upon the teachers experiences. Summer 1993 -Summer 95.

Seminar Coordinator. Challenge Seminar. Sponsored by BOCES and held at Buffalo State College. January 16, 1992.

Workshop Coordinator. Diagnostic and Prescriptive Teaching of Mathematics. Sponsor by Pennsylvania Department of Education. Held at Indiana University of PA. Summer 1990

Member of Diagnostic-Prescriptive Mathematics Advisory Board. Pennsylvania Department of Education. Fall 1988- Fall 1990.

Instructor for Diagnostic-Prescriptive Council. Pennsylvania Department of Education, 1985-1990.

Mathematics Coordinator for Philadelphia Partnership Project. Summer 89,(Funded by Pennsylvania Department of Education)

Mathematics Coordinator for projects ExCELS and Using Technology to Expand Learning in Mathematics and Sciences. Fall 1985 - Fall 1989, (Funded by NSF).

Mathematics Coordinator, IUP/ARIN Summer Science Institute, funded by the Pennsylvania State Department of Education, Summer 1984, Summer 1985.

Mathematics Consultant IUP University School. (1985 - 1990).Duties including: advisement on curriculum selection, inservice workshops, parent workshops, and regular consultation with staff on designing programs for students with special needs.

Consultant, Mid-Continental Regional Educational Laboratory (McREL), CSMP Advisory Meeting, March 1989.

Presider, NCTM annual meetings in Anaheim, CA (1987), Chicago, IL (1988) and Salt Lake City, UT (1990)

Coordinator/Teacher, for "Computer Workshop" for children in grades 5-12, Youth Experiences in Summer Program, Indiana University of Pennsylvania, Summer 1983, Summer 1984.

CONSULTANT WORK WITH PUBLIC SCHOOLS

Socratic Learning Experience, July 2021 5 day on-line workshop training staff to teach Comprehensive School Mathematics Program (CSMP).

Lafayette Planning Team May 2011 –2 – Member of the Planning team to be educational agency that with assume leadership of underperforming PLA school - Lafayette High School. Buffalo School District.

North Tonawanda High School. January 2005 “Tips and Tricks for the Math A Exam”. A one-half day workshop given to mathematics and special education teachers

Lafayette High School. Fall 2002 With my students in MED 308 we taught a class of Senior who had not completed the Math A exam. Twenty- three of 35 of the students passed the exam in January. This experience is now a permanent part of our mathematics education program.

Orchard Park High School. Taught one class of 9th grade Course I students for the entire school year as a model for other teachers in the district. Conducted two workshops on using computers in mathematics teaching conducted for the mathematics teachers in grade 6-12. Fall 95 - June 96. Classroom was visited by other staff throughout the year.

West Seneca School District. “LOGO” two half day workshops. January 96.

Kenmore - Tonawanda School District. “UCSMP, NCTM Standards and the New Compact for Learning” talk held Spring 93.

Pioneer Central School District. “Teaching with Models”, Five three hour workshops held Fall 92.

Pioneer Central School District. "NCTM Standards" Two day workshop held May 91.

Williamsville Central School District. "NCTM Standards" Six in-depth workshops. Held Spring 91.

Williamsville Central School District. " Math and Art" presented with Dr. Michael Parks. Spring 91

Penn Hills School District. "NCTM Standards". Presentation held August 1989. Five in-depth workshops held during the 1989-1990 school year.

Appalachia Intermediate Unit. "Diagnostic and "Prescriptive Teaching of Mathematics" , workshops held Spring 1988, Spring 1989.

Millwood School. Advisement on the selection of a mathematics curriculum. Midlothian VI. Spring 1989

Penns Manor School District. "Calculators in the Elementary School. " Spring 1988.

Homer City School District, Homer City, PA, workshops in: "Diagnostic and Prescriptive Teaching of Mathematics" - Spring 1985, "Computers in Secondary Instruction" - Fall 1986, "Grant Writing." - Spring 1987.

Wesmoreland Intermediate Unit, workshop in "Diagnostic and Prescriptive Teaching of Mathematics" Spring 1986.

Johnstown Public School District, Johnstown, PA, workshops in "Diagnostic and Prescriptive Teaching of Mathematics" Spring 1985, Fall 1985.

Purchase Line School District, Purchase Line, PA, workshops in: "Computers in the Curriculum" and "Problem Solving in Secondary School Mathematics" Spring 1985, "Models in Elementary School Mathematics" Spring 1986

Armstrong School District, Ford City, PA, "The TeLLS Test and Mathematics Instruction" Spring 1985

Guilderland School District, Guilderland, NY, CSMP training workshop, Summer 1983.

Warner Robins School District, Georgia, "Individualizing Instruction" , Spring 1980.

Participated in a detailed study of the British educational system in England, Summer 1976.

GRANTS

"Buffalo State College Teacher Quality Leadership Project" Main PI. Co-Director of Mathematics Component with Jane Cushman. Science and Elementary Directors: Robin Harris and Diane McCarthy. Funded by Federal Improving Teacher Quality Program Title IIA of the New York State Department of Education. Total Funding \$840,804 Fall 2006- Fall 2009.

"Preservation of the New Mathematics Materials" Research Foundation Incentive Award. Total Funding: \$6113.00

"Buffalo State College Teacher Quality Leadership Project" Main PI with John Siskar. Co-Director of Mathematics Component with David Wilson. Science and Elementary Directors: Robin Harris and Hank Dowski. Funded by Federal Improving Teacher Quality Program Title IIA of the New York State Department of Education. Total Funding \$280,268 Fall 2005- Fall 2006.

"Reflective Mediation Through Use of Technology ." PT³ Grant. US Department of Education. Project number: P342A030088. Member of the Management Team. Project Director: Diane Truscott. Total Funding \$902,500 Oct. 1, 2003-Sept. 30, 2006

"Buffalo State College Teacher Quality Leadership Project" Main PI of Mathematics Component. Diane Truscott director with Robin Harris and Hank Dowski. Funded by Federal Improving Teacher Quality Program Title IIA of the New York State Department of Education. Total Funding \$280,268 Fall 2004- Fall 2005.

Technology = Access: Teaching Future Urban Teachers Project." PT³ Grant. US Department of Education. Project number: 1018863. Member of the Management Team. Project Director: Diane Truscott. Total Funding \$425,544 Fall 2001-Fall2004

SUCB TIP award "Digital Library of Teaching and Learning in Urban Settings." Total Funding \$10,000, in 2002. Additional funding this year from CEURE of \$5000. This established a QuickTime server in the mathematics department to housed video clips of teaching and learning in an urban setting for classroom and NCATE evaluation use. To date over 40 hours of exemplary teaching is available. See: <http://ceure.buffalostate.edu/~dltl>

Professional Development School with Lafayette High School. \$4000 from CEURE . This grant established the first Professional Development School in Secondary education at BSC. Fall 2002-Spring 2003.

"Erasing the Digital Divide" with Dr. McMillen a grant to purchase graphing calculators for students in the Buffalo Public School System. Initial grant \$3000 from CEURE, additional grant from Motorola Corp. for \$12000. One time grant elicited through the College Foundation. This grant purchase approximately 150 graphing calculators for high need schools in the Buffalo School System in 2003.

"Involving students in Inquiry-based activities using a variety of Technologies and other Tools. Project (I² T²)." Co-director with Eileen Schoaff. A Dwight D. Eisenhower Grant. NYSED Project number 0132000032. Total Funding \$269,000. Fall 99 – Aug 30, 2004.

"Computer Science, Engineering and Mathematics Scholarships.(CSEM)" Co-director with Steve Barker, David Kukuka and John Fravata. National Science Foundation NSF Project number 9987170, Total Funding \$440,000 Spring 00 - Spring 04

"Alverno Project on Teacher Education Reform." One of the major authors of the proposal funded by the Philip Morris Corporation. Summer 94 - Summer 96.

" Expansion of Computer Education in Learning the Sciences" (Project ExCELS). One of the main authors and project coordinators. John Butzow director. Total funding \$417,908. NSF Project number 87-51295. Fall 1987 - Fall 1989.

" Using Technology to Expand Learning in Mathematics and the Sciences." One of the main authors and project coordinators. John Butzow director. Total funding \$414,000. NSF Project number 85-50224. Fall 1985 - Fall 1987.

Other Grant Activity

Math Consultant for the VESID Reading & Math Initiative TECHNICAL ASSISTANCE CENTER, Warren Gleckel Director. Total Funding \$287,999. Fall 1997- Summer 2003.

ABF Freight and Shipping Inc. I digitalize over 10,000 pages of an innovative program produce at Central – Midwestern Educational Laboratory. (CEMREL). The program's name is Comprehensive School Mathematics Program. These are accessible now for use to utilize in courses MAT 121 and MAT 122 and other users across the country of CSMP. The present distributor (McREL) of the program has stopped supporting materials and has given me permission to distribute the materials to other users as long as they are not used for any commercial purposes. These materials are available at: <http://stern.buffalostate.edu>. This year the entire achieves of this project and materials from 38 other projects were shipped to me due to the generosity of ABF Freight and Shipping. I received \$2185 of free shipping of 85 cartons totaling 3100 lbs containing the achieves of several experimental mathematics curricula developed in the sixties and seventies. I will seek funding from the Spencer Foundation to digitize this information to make it available to other scholars on the internet through the CEURE(now Stern.buffalostate.edu in honor of Samuel Stern a great mathematician and rabbi at Buffalo State.) server. A final report written by Clare Heidema as to contents and implication to the field is available upon requests.

Paid consultant on two other grants with Stephen I Brown SUNY Buffalo and Raffella Borasi University of Rochester .

Other Proposals Not Funded.

National Science Digital Library: A History of Mathematics Education and the "New Math" Submitted to NSF Spring 2004.

Buffalo State College's Institute for Excellence in Mathematics Teaching Submitted to NSF Summer 2000

PUBLICATIONS

"Promoting Reflectivity Through Technology." with John Siskar et. al. In Crawford, C., Willis, D., Carlsen, R., Gibson, I., McFerrin, K., Price, J., & Weber, R. (Eds.),

Proceedings of Society for Information Technology and Teacher Education International Conference 2006 (pp. 3055-3062). Chesapeake, VA: AACE.

Review of the software package IE Algebra *The Mathematics Teacher*, NCTM Publication, April 1998 p354.

Review of Exploring Prime Numbers on Your PC by Enough Haga. *The Mathematics Teacher*, NCTM Publication, September 1995

Diagnostic and Prescriptive Mathematics, Publication of the Department of Education, PA, 1990. Authored Testing sections in revised edition.

"Using Microcomputers as a Tool to Encourage Active Learning: the ExCELS Project" with Larry Feldman. *Wisconsin Teacher of Mathematics*, Spring 1988.

"Calendar of the Month." (with other faculty and students of IUP) *The Mathematics Teacher*, NCTM Publication, January 1986.

"Calendar of the Month." (with other faculty and students of IUP) *The Mathematics Teacher*, NCTM Publication, February 1986.

"Calendar of the Month." (with other faculty and students of IUP) *The Mathematics Teacher*, NCTM Publication, April 1986.

CSMP Mathematics for Intermediate Grades, Part III, World of Numbers. One of the main contributing authors of the revised edition of the fifth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora, CO. 1986.

CSMP Mathematics for Intermediate Grades, Part III, Language of Strings and Arrows. One of the main contributing authors of the revised edition of the fifth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora CO. 1986.

CSMP Mathematics for Intermediate Grades, Part IV , World of Numbers. One of the main contributing authors of the revised edition of the fifth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora CO. 1986.

CSMP Mathematics for Intermediate Grades, Part IV , Language of Strings and Arrows. One of the main contributing authors of the revised edition of the fifth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora CO. 1986.

CSMP Mathematics for Intermediate Grades, Part V, World of Numbers. One of the main contributing authors of the revised edition of the sixth grade program of

Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora, CO. 1985.

CSMP Mathematics for Intermediate Grades, Part V Language of Strings and Arrows, One of the main contributing authors of the revised edition of the sixth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora, CO. 1985

CSMP Mathematics for Intermediate Grades, Part VI, World of Numbers One of the main contributing authors of the revised edition of the sixth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora, CO. 1985

CSMP Mathematics for Intermediate Grades, Part VI, Language of String and Arrows One of the main contributing authors of the revised edition of the sixth grade program of Comprehensive School Mathematics Program, Pamela Pedersen ed. McREL Inc., Aurora, CO. 1985

"Challenges for the Gifted: Algebra." *The Mathematics Teacher*, NCTM Publication, April 1983.

"Population Growth" found in *Probability and Statistics*, a collection of papers on the teaching of probability and statistics in CSMP's elementary school curriculum, Edited by Richard D. Armstrong and Pamela Pedersen, CEMREL, Inc., 1982.

"I have...Who has..." *The Mathematics Teacher*, NCTM Publication. October 1980.

Mathematics and Computers. T. Giambrone and L. Feldman, ed. Workshop manual for Project ExCEL. Published in house. 1987.

Other

Cited in "First Date with Math" by Steve Sullivan, Contingencies, a publication of the American Society of Actuaries, July/August 2006 issue available at: http://www.contingencies.org/julaug06/first_date_0706.asp

Cited in "I have...Who has...? A Review Activity" by Gae Johnson and William Buckreis Arizona Teacher of Mathematics Newsletter, Spring 2005. AATM. Available at: http://www.aatm.org/spring_2005.pdf

Review of a Collection of Papers on the Teaching of Probability and Statistics in an Elementary School Curriculum, Review author[s]: Alan R. Hoffer *The American Statistician* © 1984 [American Statistical Association](http://www.amstat.org)

Cited in "Mathematically Promising Students from the Space Age to the Information Age" by Linda Jensen Sheffield in Creativity, Giftedness, and Talent Development in

Mathematics Published by IAP, 2008, Available at:

<http://www.math.umt.edu/TMME/vol3no1/TMMEv3n1full.pdf#page=106>