

Joseph O. Mercer

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Home Page: <http://ceemrr.com/Mercer>

Summary:

Retired in 2009 from teaching math at two [Albuquerque Public Schools](#) (West Mesa High School and Sandia High School in Albuquerque, NM). Previously took an early retirement (in 1993) after twenty years teaching mathematics, statistics and computer science in a national award-winning high school in Illinois ([Glenbrook North](#)); taught part-time at a community college in Illinois ([Oakton Community College](#)); published articles; expertise with computers and computer languages; background in statistics.

Taught all levels of High School Mathematics and Computer Science, including Advanced Placement and beyond (Multivariate Calculus, Differential Equations, Mathematical Statistics, Linear Algebra), served as math team coach in Illinois, attending local and state competitions, served as MESA sponsor in Albuquerque.

Awards

- Who's Who Among America's Teachers (2004, 2006)
 - National Honor Society (2002)
 - Glenbrook North High School Outstanding Service Award (1983)
 - University of Chicago Outstanding Teacher Award (1983)
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Teaching Experience

- **1999-2009:** Teacher of Mathematics in Albuquerque Public Schools, Albuquerque, NM
 - **1994-1999:** Substitute Teacher for Albuquerque Public Schools
 - **1973-1993:** Mathematics and Computer Science Teacher, Glenbrook North High School, Northbrook, Illinois
 - **1979-1987:** Part-Time Instructor in Mathematics and Computer Science, Oakton Community College, DesPlaines, Illinois
 - **1972-1973:** Mathematics Teacher, Crownpoint High School, Crownpoint, New Mexico
 - **1967-1971:** Teaching Assistant in Mathematics, University of Illinois, Urbana, Illinois
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Special Accomplishments while at Albuquerque Public Schools

- Designed and Created Lessons and Worksheets for Online Geometry Course
 - Graded AP Calculus exams for Educational Testing Service
 - Taught Advanced Placement Mathematics -- Calculus AB
 - Taught NovNET Mathematics -- Algebra I, Geometry, Algebra II
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Special Courses Taught at Glenbrook North High School

- Advanced Placement Mathematics (Calculus BC)
 - Advanced Placement Computer Science
 - Multivariate Calculus -- Many of my students took and passed (during high school) the First Actuarial Exams and one earned the 4th highest score in the nation.
 - College-level Statistics -- One of my students took and passed the Second Actuarial Exam (while in high school)
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Additional Accomplishments at Glenbrook North High School

- Served as Math Team Coach for high school seniors, attending competitions with them (including State meets).
 - Served on various committees, including negotiations, school evaluation and Vision.
 - Served on "Idea Exchange Team" to visit Grinell College at superintendent's request.
 - Designed and monitored Computer Science curriculum; wrote texts and lessons; assisted with purchase of hardware and software; served as system manager; wrote grading package for use of mathematics department; served as computer consultant for other departments.
 - Designed Discrete Math course with emphasis on Statistics; wrote accompanying text book.
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Additional Experience

- Currently referee/reviewer for the *National Council of Teachers of Mathematics*.
 - Online tutor (tutor.com) in Algebra 2 and Calculus
 - Worked as teacher-consultant for the *Institute for the Learning Sciences* at Northwestern University (summer, 1990) under the direction of Prof. Roger Schank.
 - Salesman at Nabih's Computer Store in Evanston, IL (summer, 1983).
 - Helped teachers and community members complete Ph.D. theses in education.
 - Sponsored two Navajo students from Crownpoint, NM to attend Glenbrook North High School in their junior and senior years; supported them while they attended college at the University of Illinois in Chicago; supported Navajo family for a year while the husband attended the American Academy of Art in Chicago.
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Publications

- "What Is Left to Teach If Students Can Use Calculators?" *Mathematics Teacher* 85 (September 1992): 415-17
 - "Some Surprising Probabilities from Bingo" *Mathematics Teacher* 86 (December 1993): 726-31
 - "Teaching Graphing Concepts with Graphing Calculators" *Mathematics Teacher* 88 (April 1995): 268-73
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Speaking Engagements

- "Computer Science Curriculum at Glenbrook North" *Illinois Council of Teachers of Mathematics*, Normal, Illinois (October, 1980)
 - "Statistics in High School" *Illinois Council of Teachers of Mathematics*, Urbana, Illinois (October, 1987)
 - "Differences between Concept and Mechanical Skills: A Real Problem Approach" *Success for Everyone* program sponsored by the University of Illinois, Chicago, Illinois (February, 1988) *honorarium*
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Professional Memberships:

- National Council of Teachers of Mathematics (NCTM)
 - Mathematical Association of America (MAA)
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Education and Training:

- **2003:** Attended training sessions for Vertical Team Facilitator sponsored by the State of New Mexico
 - **1980-1989:** Attended workshops at Digital Corporation and DECUS
 - **1972:** All but dissertation for Ph.D. in Mathematical Statistics (Univ. Illinois)
 - **1967:** M.S. in Mathematics (Univ. Illinois)
 - **1965:** B.S. in Mathematics Education (Univ. Illinois)
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