

# Curriculum Vitae for Jerry Alan Johnson

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## EDUCATION:

Ph.D. in Mathematics, University of Illinois (Urbana), 1969  
M.S. in Mathematics, University of Illinois (Urbana), 1966  
B.S. in Mathematics, Oklahoma State University, 1964

## EMPLOYMENT:

Professor of Mathematics, University of Nevada, July 1993 – present.  
Chairman of Department of Mathematics, University of Nevada, July 1995 – July 2001.  
Professor of Mathematics & Director of the Mathematics Center, University of Nevada, August 1993 – July 1995  
Professor of Mathematics, Oklahoma State University, 1979-1993  
Visiting Professor of Mathematics, Penn State University, Spring, 1976  
Associate Professor of Mathematics, Oklahoma State University, 1973-1979  
Assistant Professor of Mathematics, Oklahoma State University, 1969-1973

## UNDERGRADUATE COURSES TAUGHT

◆ Math for Liberal Arts ◆ College Algebra & Trigonometry ◆ Business Calculus ◆ Calculus and Harvard Consortium Calculus (I, II and III) ◆ Finite Mathematics ◆ Discrete Mathematics (I and II) ◆ Linear Algebra ◆ Differential Equations ◆ Calculus of Several Variables ◆ Introduction to Modern Algebra ◆ Advanced Calculus ◆ Complex Variables ◆ Theory of Positive Integers.

## GRADUATE PROGRAM EXPERIENCE

I have taught the following graduate courses: ◆ Real Analysis I, II ◆ Complex Analysis I, II ◆ Functional Analysis ◆ Theory of Locally Convex Spaces ◆ Choquet Theory ◆ Point Set Topology ◆ Special reading courses in analysis.

I have directed one Ph.D. thesis (1975) and two Ed.D. theses (1973 & 1980). I have served on a number of Mathematics Ph.D. committees, Mathematics Ed.D. committees, and Master's Committees. In addition, I have served on several Engineering Ph.D. committees as the external member.

## SELECTED DEPARTMENTAL AND OTHER SERVICE At Oklahoma State University

◆ Promotion and Tenure Committee (elected 6 years two as Chair) ◆ Research Committee (4 years)  
◆ Appointments Committee (4 years) ◆ Graduate Committee and Graduate Examination Committee  
◆ Colloquium Committee Common Exam Committee ◆ Committee to Design Student Evaluation Forms  
◆ Committee on the Master's Degree in Applied Mathematics ◆ Library Committee ◆ Computer Resources Committee ◆ MLRC Committee ◆ Mathematics Education Committee ◆ Textbook committees (too numerous to mention) ◆ University Committee on Effective Instruction ◆ College of Arts and Sciences Program Enrichment Committee ◆ College of Arts and Sciences Board of Faculty Representatives (elected in 1989 to a 3-year term) ◆ Search Committee for Associate Dean (College of Arts and Sciences).

## **SELECTED DEPARTMENTAL AND OTHER SERVICE At the University of Nevada, Reno**

◆ University Core Board ◆ University Core Mathematics Committee (Chair) ◆ University Core Natural Science Committee ◆ Teacher Education Committee College of Education ◆ Washoe County Mathematics and Science Education Task Force ◆ TMCC Committee on Math Science and Technology ◆ Mathematics Department Merit Committee (Chair) ◆ Nevada State Mathematics Council ◆ College of A&S Promotion and Tenure Committee ◆ University Assessment Committee ◆ University Accreditation Self Study Committee on Finance ◆ Nevada State Task Force on K-12 Mathematics Standards. ◆ Search Committee for College of A&S development director ◆ Faculty Senate 2002 – 2004 ◆ Curriculum Committee, College of Science (Chair) ◆ Search Committee for College of Science Dean (elected).

## **MEMBERSHIPS AND PROFESSIONAL SERVICE**

- ◆ American Mathematical Society
- ◆ Mathematical Association of America

I have refereed for numerous mathematics journals including: ◆ The Journal of Functional Analysis ◆ Proceedings of the American Mathematical Society ◆ Indiana Journal of Mathematics ◆ Canadian Mathematical Bulletin ◆ Journal of General Topology ◆ Rocky Mountain Journal of Mathematics ◆ Pacific Journal of Mathematics ◆ The Mathematics Teacher ◆ The College Mathematics Journal ◆ The American Mathematical Monthly. ◆ I have also reviewed several software packages and textbooks for major publishing houses.

## **PROFESSIONAL ACTIVITIES: INVITED PRESENTATIONS, COLLOQUIA, TALKS, and MEETINGS ATTENDED**

### **1970 – 1989**

- Presented paper at AMS meeting in San Antonio, 1970.
- Presented invited colloquium at University of Texas, El Paso, 1970.
- Presented paper at AMS meeting in Las Vegas, 1971.
- Presented paper at AMS meeting in San Francisco, 1973.
- Attended AMS meeting in Dallas, 1974.
- Attended International Congress of Mathematicians, Vancouver B.C., 1974.
- Presented paper at AMS meeting in Washington, D.C., 1975.
- Spoke at MAA meeting in Edmond, OK, 1975.
- Presented invited colloquium at University of Oklahoma, 1975.
- Attended AMS meeting in San Antonio, 1976.
- Took sabbatical leave at Penn State University, 1976.
- Attended CBMS conference at Kent State University, 1976. (Invited and awarded NSF stipend.)
- Attended AMS meeting in Toronto, 1976.
- Attended AMS meeting in St. Louis, 1977.
- Attended special Conference on Vector Measures at University of North Carolina, 1977. (Invited and awarded NSF stipend.)
- Attended AMS meeting in Columbus, Ohio, 1977.
- Presented invited colloquium at Texas Tech University, 1978.
- Presented invited colloquium at University of Oklahoma, 1978.
- Attended International Congress of Mathematicians in Helsinki, Finland, 1978.
- Attended AMS meeting in Atlanta, 1978.
- Attended AMS meeting in Biloxi, 1979.
- Attended AMS meeting in San Antonio, 1980.
- Attended AMS meeting in San Francisco, 1981.
- Presented paper and chaired session at MAA meeting in Edmond, OK, 1981.
- Invited talk at AMS meeting in Austin, 1981. (Joint work, presented by John Wolfe.)
- Presented paper at MAA meeting in Fayetteville, Arkansas, 1982.

- Attended AMS meeting in Denver, 1983.
- Presented paper at MAA meeting in Russellville, Arkansas, 1984.
- Presented invited Colloquium at Purdue University, Calumet, 1984.
- Attended AMS meeting in New Orleans, 1986.
- Presented invited Colloquium at Southwest Texas State University, 1986.
- Attended AMS meeting in San Antonio, 1987.
- Attended The Calculus for a New Century conference in Washington D.C., October, 1987
- Attended a short course on the mathematics computer software muMATH at AMS meeting in Atlanta, January, 1988.
- Attended Special Lecture Series by Stephen Smale at The University of Miami, Miami, Florida, January, 1988. (Awarded stipend to attend.)
- Some muMATH activities with large classes of differential equations and linear algebra, paper presented at The Conference on Technology in Collegiate Mathematics, Ohio State University, October, 1988.
- The Mathematics Learning Resource Center at Oklahoma State University; experiences with a large scale mathematics laboratory, paper presented at The Proceedings of the Conference on Technology in Collegiate Mathematics, Ohio State University, October, 1988. (With Pamala Cemen.)
- Attended National AMS/MAA meeting in Phoenix, January, 1989.
- Workshops for College Teachers, talk at the MAA regional meeting, March, 1989, Edmond, OK. (With Benny Evans.)
- Attended the Conference on Calculus Reform at The University of Miami of Ohio, February, 1989.
- The Microcomputer as a Laboratory Instrument, paper presented at The Second International Conference on Technology in Collegiate Mathematics, Ohio State University, November, 1989. (With Benny Evans.)
- Invited panelist at the Calculus Reform Conference at The University of Texas, San Antonio, August 1989. (with John Bradley of NSF and Jerry Uhl of the University of Illinois.)

## 1990

- *Variations on Some Classic Calculus Problems Using the Microcomputer*, talk at a refereed special session of the AMS/MAA meetings in Louisville, January, 1990. (Based on joint work with Benny Evans.)
- *Classroom Demonstrations Using Acrospin*, talk at a refereed special session of the AMS/MAA meetings in Louisville, January, 1990. (Based on joint work with Benny Evans.)
- *The Impact of Technology on the Mathematics Curriculum*, invited talk presented at the annual meeting of the Oklahoma Junior College Mathematics Association, Northeastern Okla. State Univ., March, 1990.
- *Classroom Uses of a New Animated 3D Graphing Program: GyroGraphics*, talk at the Oklahoma-Arkansas regional MAA meeting, John Brown University, March, 1990.
- *Uses of Electronic Technology in the Curriculum*, invited colloquium at The University of Oklahoma, April, 1990. (With Benny Evans)
- *Derive and GyroGraphics in the Mathematics Curriculum*, a workshop presented at The Oklahoma Council of Teachers of Mathematics meeting, Northeastern State University, April, 1990.
- *GyroGraphics: New Software for 3D Animation in Calculus*, an invited hour address presented at the IBM Conference on Academic Technology, Miami Beach, June 1990.
- *Derive and GyroGraphics: Revolutionary New Software for Mathematics*, invited talk at The Oklahoma Council of Teachers of Mathematics meeting at Oklahoma City Community College, October, 1990.
- *The Oklahoma Experience*. A three hour invited special session concerning technology in the curriculum at OSU. Presented at The Third Annual International Conference on Technology in Collegiate Mathematics, Ohio State University, November, 1990. (With Benny Evans.)
- *3D Graphing with GyroGraphics*, an invited minicourse at The Third Annual International Conference on Technology in Collegiate Mathematics, Ohio State University, November, 1990. (With Benny Evans.)

## 1991

- *Pedagogical Uses of Derive and GyroGraphics*, invited three hour minicourse at the national AMS/MAA meeting, San Francisco, January, 1991.
- *Derive, GyroGraphics and The Mathematics Curriculum*, invited hour address at the Maryland - Virginia - D.C. Regional MAA meeting, April, 1991.

- *GyroGraphics*, invited workshop conducted at the Maryland - Virginia - D.C. Regional MAA meeting, April, 1991.
- *Using GyroGraphics to Teach Mathematics*, invited hour address at the Frostburg State University Mathematics Symposium, Frostburg, Maryland, April, 1991.
- *Visualization Using GyroGraphics*, talk at the MAA Oklahoma-Arkansas regional meeting, Cameron University, April, 1991.
- *Derive and GyroGraphics in the Mathematics Curriculum*, invited colloquium at The University of Texas, San Antonio, July, 1991.
- *GyroGraphics in the Calculus Classroom*, talk at a refereed special session of the AMS/MAA National Summer meeting, University of Maine, August, 1991.
- *The Influence of Technology on the Mathematics Curriculum*, invited colloquium at OSU, September, 1991.
- *GyroGraphics*, invited presentation given at The National EDUCOM meeting, San Diego, October, 1991.
- *Derive, GyroGraphics and The Mathematics Curriculum*, invited hour address given at the National meeting of The American Mathematical Association of Two Year Colleges, Seattle, November, 1991.
- *Derive in Calculus and Precalculus*, invited minicourse given at the National meeting of The American Mathematical Association of Two Year Colleges in Seattle, November, 1991.
- *3D Graphing with GyroGraphics*, an invited minicourse given at The Fourth Annual International Conference on Technology in Collegiate Mathematics, Portland State University, November, 1991. (With Benny Evans.)

## 1992

- Attended national AMS/MAA meeting, Baltimore, January, 1992.
- *Technology in the Mathematics Curriculum*, invited colloquium and workshop at Schoolcraft College, Detroit, February, 1992.
- Attended The National Council of Teachers of Mathematics national meeting in Nashville, March 1992.
- *Technology in the Undergraduate Curriculum*, invited colloquium at University of North Carolina, Greensboro, April 1992.
- *Derive in the Calculus Curriculum*, invited colloquium at DeAnza College, San Jose, CA, April 1992.
- *Technology in the Mathematics Curriculum*, invited workshop at The University of Nevada, Reno, April 1992.
- *Norm Attaining Operators on Banach Spaces*, invited colloquium at The University of Nevada, Reno, April 1992.
- *Chair of NSF Evaluation Committee for Calculus and Mathematica* project. Attended Ohio State University on evaluation site visit.
- *Invited to attend a three day NSF sponsored conference on calculus reform at Harvard University, June 1992.*
- *GyroGraphics*, an invited NSF-sponsored Faculty Workshop given at Clemson University, August 1992.
- *Using Technology in Precalculus*, invited in-service presentation for Stillwater Public Schools, August 1992.
- *Using Technology in the Mathematics Curriculum*, invited Colloquium and workshop at Diablo Valley College, Diablo Valley, CA, August 1992.
- *How Technology Should Influence the Mathematics Curriculum*, invited Keynote Address to the Greater Kansas City Technology Exposition, October, 1992.
- *GyroGraphics in Calculus III*, invited hour talk at the Greater Kansas City Mathematics Technology Exposition, October, 1992.
- *How Will Our Use of Technology Affect the Analytic Capabilities of Our Students?* invited panelist at the Greater Kansas City Technology Exposition, October, 1992.
- *3D Graphing with GyroGraphics*, invited hour address given at The Fifth Annual International Conference on Technology in Collegiate Mathematics, Chicago, November, 1992.
- *Exploring Calculus with Derive*, invited minicourse given at The Fifth Annual International Conference on Technology in Collegiate Mathematics, Chicago, November, 1992.
- *GyroGraphics in Calculus*, invited minicourse given at The Fifth Annual International Conference on Technology in Collegiate Mathematics, Chicago, November, 1992.
- *Using GyroGraphics in the Teaching of Mathematics in Grades 11-14*, invited hour talk at the Missouri Council of Teachers of Mathematics Meeting, Columbia, MO, December, 1992.

## 1993

- *Visualization in Calculus and Linear Algebra Using Animated 3D Graphing with GyroGraphics*, a talk at a refereed special session of the AMS/MAA National Meeting, January 1993. (With Steve Murdock.)
- *The Role of Technology in the Reform of the Calculus and Linear Algebra Curricula*, an invited colloquium at The University of Nevada, Reno, NV, March 1993.
- *Technology in the Classroom*, an invited 3-hour workshop at the Oklahoma-Arkansas regional MAA meeting, Tulsa, OK, March 1993. (With Benny Evans.)
- *Animated 3-D Graphing in Calculus with GyroGraphics*, a talk at a special session at the Oklahoma-Arkansas regional MAA meeting, Tulsa, OK, March 1993.
- *Fresh Perspectives on Old Topics*, a special session at the Oklahoma-Arkansas regional MAA meeting, Tulsa, OK, March 1993. (Organized with Benny Evans as part of NSF Grant USE 9154269.)
- *Technology in the Classroom. Fresh Perspectives on Old Topics*, a faculty workshop given at the Oklahoma-Arkansas regional MAA meeting, Tulsa, OK, March 1993. (With Benny Evans.)
- *Using Derive and GyroGraphics in Calculus and Linear Algebra*, an invited 8-hour MAA minicourse, Houston, April 24-25, 1993. (With Benny Evans.)
- *Using Derive and GyroGraphics in the Harvard Calculus Curriculum*, an invited hour address at the national meeting of The American Mathematical Association of Two-Year Colleges, November, 1993, Boston.
- *GyroGraphics and Derive in the Harvard Calculus Curriculum*, an invited hour address at The Sixth Annual International Conference on Technology in Collegiate Mathematics, Newark, November, 1993.
- *Animated 3D Graphing in Calculus with GyroGraphics*, an invited minicourse given at The Sixth Annual International Conference on Technology in Collegiate Mathematics, Newark, November, 1993.

## 1994

- *Studying Polynomials and Commuting Matrices with Derive*, talk at a refereed special session of the AMS/MAA National Meeting, Cincinnati, January 1994.
- *Using the Derive Program to Study  $\Gamma'(1)$* , talk at a refereed special session of the AMS/MAA National Meeting, Cincinnati, January 1994.
- *Using Derive and GyroGraphics in the Harvard Calculus*, invited workshop at Harvard Calculus Conference, San Joaquin Delta College, Stockton, CA, February 1994.
- *Animated 3D Graphing in Calculus with GyroGraphics*, an invited hour address given at The Western Regional Conference of the National Council of Teachers of Mathematics in San Francisco, February 1994.
- *Derive and GyroGraphics: Linking Symbolics, Visualization and Calculus*, invited hour address at the National NCTM meeting, Indianapolis, April, 1994.
- *Using Derive and GyroGraphics in Calculus and Linear Algebra*, an invited 8-hour Mathematical Association of America Minicourse in Atlanta, April 24-25, 1994. (With Benny Evans.)
- *The Harvard Calculus Curriculum at UNR*, an invited lecture given at Oklahoma State University, August 3, 1994.
- *Implementing the Harvard Calculus Curriculum*, an invited lecture and workshop given at The University of Nebraska, Lincoln, August 17, 1994.
- *Mathematics Across the Curriculum*, an invited talk at a special session of The American Mathematical Society meeting at Oklahoma State University, October 1994.
- *GyroGraphics in Calculus*, an invited talk at a special session of The American Mathematical Society meeting at Oklahoma State University, October 1994.
- *Mathematics Across the Curriculum*, an invited hour address at the national meeting of The American Mathematical Association of Two Year Colleges in Tulsa, November 1994.
- *Technology and Mathematics Across the Curriculum*, an invited hour address at The Seventh Annual International Conference on Technology in Collegiate Mathematics in Orlando, FL, November 1994.
- *Animated 3D Graphing in Calculus with GyroGraphics*, an invited minicourse given at The Seventh Annual International Conference on Technology in Collegiate Mathematics in Orlando, FL, November 1994.

## 1995

- *Derive in Linear Algebra*, an invited four-hour minicourse at the national AMS/MAA meeting in San Francisco, January, 1995. (With Benny Evans).
- *Using a CAS to Investigate Polynomials and Commuting Matrices*, a talk at a refereed special session of the AMS/MAA National Summer Meeting, Burlington, VT, August 1995.
- *Assessing Collaborative Efforts through use of Focus Groups*, an hour address at the Thirty-fifth Annual Conference of the Association for General and Liberal Studies, San Antonio, October 1995. (With Jane Nichols, et al.)
- *Mathematics Across the Curriculum*, an invited hour address at the national meeting of The American Mathematical Association of Two-Year Colleges in Little Rock, November 1995.
- *Animated 3D Graphing in Calculus with GyroGraphics*, an invited minicourse given at The Eighth Annual International Conference on Technology in Collegiate Mathematics in Houston, November 1995.
- Invited panelist for *Using Technology in Multivariable Calculus and Linear Algebra*, a special session at The Eighth Annual International Conference on Technology in Collegiate Mathematics in Houston, November 1995.

## 1996

- *Mathematics Across the Curriculum*, an invited colloquium at Bowling Green State University, February, 1996.
- *Mathematics Across the Curriculum*, an invited colloquium at St. Louis Community College, October, 1996.
- *Using Technology in Teaching Mathematics*, an invited colloquium at The University of California, Davis, October, 1996.

## 1997

- *Mathematics Across the Curriculum*, an invited paper in a special session at the AMS/MAA National Meeting, San Diego, January, 1997.
- *Mathematics in Art and Humanities*, a contributed paper at the Sixth Annual Conference on the Teaching of Mathematics, Milwaukee, June 1997.
- *Using Derive and GyroGraphics in Calculus*, an invited hour address at the Flemish Mathematics Congress, Leuven, Belgium, July 1997.

## 1998

- *A Computer Laboratory to Support Mathematics Across the Curriculum and Calculus Reform*, an invited poster session for NSF ILI projects at the AMS/MAA National Meeting, Baltimore, January, 1998. (NSF DUE-9451171)
- Invited member of the national MAA Committee on Sessions of Contributed Papers, at the AMS/MAA National Meeting, Baltimore, January, 1998.
- *Establishing a Mathematics Learning Center*, an invited colloquium at The Ohio State University, Columbus, February 1998.
- *Computer Technology in Math Across the Curriculum*, an invited talk at the International Conference on Technology in Collegiate Mathematics, New Orleans, November 1998.

## 1999

- *Quantitative Literacy through "Mathematics Across the Curriculum"* a talk at a refereed special session of the AMS/MAA National Meeting, San Antonio, January 1999.
- *Mathematics across the Curriculum* a talk at a refereed special session of the AMS/MAA National Meeting, San Antonio, January 1999.
- Invited member of the national MAA Committee on Sessions of Contributed Papers, at the AMS/MAA National Meeting, San Antonio, January 1999.
- Participated as invited member of the National Visiting Committee for NSF's Mathematics and its Applications across the Curriculum Project at Rensselaer Polytechnic Institute.

## 2000

- Invited member of the Mathematical Association of America's national Committee on Sessions of Contributed Papers. Attended committee meeting at the AMS/MAA National Convention, Washington, D.C., January 2000.
- Invited member of the Mathematical Association of America's national Committee on Mathematics across the Disciplines. Attended committee meeting at the AMS/MAA National Convention, Washington, D.C., January 2000.
- Attended a meeting of the national Quantitative Literacy Design Team in San Francisco, March 2000 as an invited member. This is a national panel of approximately 12 people funded by the Pew Charitable Trusts and organized by Dr. Bob Orrill of the Woodrow Wilson National Fellowship Foundation and Dr. Lynn Steen, former president of the Mathematical Association of America. Its goal is to design a national "quantitative literacy initiative" and to seek further funding from Pew to implement it.
- Attended a meeting of the Quality Undergraduate Education Project in Atlanta, September 22 - 23 as an invited member. This is a group of faculty at colleges and universities across the country funded by the Pew Charitable Trusts and the Exxon-Mobil foundation to design a set of "standards" for university curricula.
- *Math across the Curriculum*, a colloquium and workshops presented at Hollins University, Roanoke VA, September 13-16, 2000.
- *Online Testing of Mathematics for Engineers*, presented at a contributed paper session of the International Conference on Technology in Collegiate Mathematics in Atlanta, November 17, 2000.

## 2001

- *Online math testing, remediation and assessment strategy for engineering majors*, presented at an invited NSF poster session at the AMS/MAA National Meeting, New Orleans, January 2001.
- Attended meeting of the *Quality Undergraduate Education Project* as an invited member. This is a national consortium of colleges and universities funded by the Exxon- Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula. Long Beach, CA, March 23 - 25
- Attended meeting of the Advisory Committee for the National Numeracy Network. This is a project focusing on best practices in quantitative literacy at the school-college transition, funded by the Pew Charitable Trusts. Philadelphia, July 1 - 3.
- Invited panelist for session entitled *Teaching Mathematics to Liberal Arts Students* at the summer meeting of the Mathematical Association of America (called MathFest), Madison WI, Aug. 2001.
- Invited panelist for session entitled *Everything You Have Always Wanted to Know about the Grant Writing Process from those Who Have Been Awarded Funding* at the summer meeting of the Mathematical Association of America (called MathFest), Madison WI, Aug. 2001.
- Attended meeting of the *Quality Undergraduate Education Project* as an invited member. This is a national consortium of colleges and universities funded by the Exxon- Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula. Baltimore, Sept. 14-16.
- Invited participant in *Quantitative Literacy: Why Numeracy Matters for Schools and Colleges*, a national forum on quantitative and mathematical expectations in grades 11-14. At the National Academy of Sciences, Washington, D.C., December 1-2, 2001.

## 2002

- *A new online math testing, remediation and assessment strategy for engineering majors*, presented at an invited NSF poster session at the AMS/MAA National Meeting, San Diego, January 2002.
- *Online math testing for engineering majors*, presented at an invited contributed paper session at the AMS/MAA National Meeting, San Diego, January 2002.
- Attended meeting of the *Quality Undergraduate Education Project* as an invited member. This is a national consortium of colleges and universities funded by the Exxon- Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula. Reno, March 9 - 10.
- Attended meeting of NSF Principal Investigators for dissemination of DUE projects. Washington, D.C. March 14 - 16.
- *Quantitative Literacy*, a colloquium and consultation at Pittsburg State University, Pittsburg KS, March 29, 2002.

- *Implementing Quantitative Literacy at a Comprehensive State University: Successes and Obstacles*. An invited presentation at the Project Kaleidoscope 2002 Summer Institute, Williamsburg, VA, May 28 - June 1.
- Attended NSF-sponsored Assessment Workshop as an invited participant, Burlington, VT, July 29- August 2.
- Attended meeting of the *Quality Undergraduate Education Project* as an invited member. This is a national consortium of colleges and universities funded by the Exxon-Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula. Baltimore, September 20-22.
- Attended meeting of the National Numeracy Network as an invited member. This is a national consortium of four universities funded by the Pew Charitable Trusts through the Woodrow Wilson National Fellowship Foundation, focusing on best practices in quantitative literacy at the school-college transition, San Francisco, September 27-28.
- *A Comprehensive Online Mathematics Assessment, Placement and Exit Testing Program*, invited presentation at the International Conference on Technology in Collegiate Mathematics, Orlando, November 1, 2002.

## 2003

- *A Comprehensive Online Mathematics Assessment, Placement and Exit Testing Program*, presented at an invited NSF poster session at the AMS/MAA National Meeting, Baltimore, January 2003.
- NSF-sponsored Assessment Workshop - invited participant, Baltimore, January 2003.
- Attended meeting of the *Quality Undergraduate Education Project* as an invited member. QUE is a national consortium of colleges and universities funded by the Exxon-Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula. San Antonio, March 2003.
- Invited member of the National Council of Teachers of Mathematics Assessment Task Force. Attended meeting in Denver, July 28 - 30.
- *Implementing Quantitative Literacy at a Comprehensive State University: Successes and Obstacles*. An invited 2-hour presentation at the 2003 Washington State Summer Quantitative Literacy Workshop, Leavenworth, WA, Aug 6 - 9.
- Attended meeting of the Quality Undergraduate Education Project as an invited member. New Orleans, September 2003.
- *An Online Mathematics Assessment, Placement and Learning System*, poster session at the International Conference on Technology in Collegiate Mathematics, Chicago, November 2003.

## 2004

- *An online mathematics assessment, placement and exit testing project*, presented at an invited session on Assessment at the AMS/MAA National Meeting, Phoenix, January 2004.
- *An online mathematics readiness testing program*, presented at an invited session on Placement at the AMS/MAA National Meeting, Phoenix, January 2004.
- Invited member of the *National Council of Teachers of Mathematics Assessment Task Force*. Attended meeting in San Antonio, March 5 – 7, 2004.
- Invited member of the *National Numeracy Network Advisory Board*. Attended meeting at Dartmouth College, June, 2004.
- Invited colloquium on *Math across the Curriculum*, Mt. St. Mary's College, Los Angeles, September 10, 2004.
- *Quantitative Literacy using Excel*, an hour talk at the International Conference on Technology in Collegiate Mathematics, New Orleans, October 2004

## 2005

- Attended the AMS/MAA National Meeting, Atlanta, January 2005.
- Invited panelist to review NSF grant proposals in Washington, D.C., July 24-26.

## 2006

- *Resources for QL: Math across the Curriculum, and the National Numeracy Network*, a talk given at an invited papers session at the AMS/MAA National Meeting, San Antonio, January 2006.
- *Online Readiness Testing and Assessment*, an invited presentation at the International Conference on Technology in Collegiate Mathematics, Orlando, March 2006.
- *Quantitative Literacy*, a colloquium and workshop at Monmouth University, Monmouth, Illinois, March, 2006.

## GRANTS, AWARDS, and HONORS

Spring 1989: *Uses of Electronic Technology in the Undergraduate Mathematics Curriculum: A Workshop and Forum for College Mathematics Faculty*. National Science Foundation grant USE--8950044 in the amount of \$88,044. (With Benny Evans.)

May 1990: *Computer Aided Instruction in Mathematics and Electrical Engineering*. \$640,000 equipment grant from AT&T. (With Benny Evans and Charles Bacon.)

September 1990: *Twenty-first Century Mathematics Classrooms at Oklahoma's Comprehensive Universities*, Oklahoma State Regents' Quality Initiative grant. \$151,000 award shared with The University of Oklahoma. (With Benny Evans, Andy Magid, and Curtis McKnight.)

March 1991: *Twenty-first Century Mathematics Classrooms for the Oklahoma Higher Education System*, Oklahoma State Regents' Quality Initiative grant. \$70,000 award shared with The University of Oklahoma. (With Benny Evans, Andy Magid, and Curtis McKnight.)

August 1991: EDUCOM 1991 National Distinguished Mathematics Software Award for the animated 3D graphing software *GyroGraphics*, \$1,000. Presented in San Diego.

Spring 1992: *Fresh Perspectives on Old Topics: A Workshop and Forum for College Faculty*. National Science Foundation grant USE-9154269 in the amount of \$75,555. (With Benny Evans.)

Spring 1992: Invited Member of the Program Committee for The Fifth Annual Conference on Technology in Collegiate Mathematics. (Chicago, November, 1992.)

Summer 1992: *A Computerized Classroom for Undergraduate Mathematics*. National Science Foundation Instrumentation and Laboratory Improvement grant DUE-9252019 in the amount of \$52,800. (With Benny Evans.)

Fall 1992: *Implementation and Dissemination of the Harvard Consortium Materials in Arizona, Oklahoma and Utah*. 3-year National Science Foundation grant DUE-9252521. Funded as a member of a consortium with The University of Arizona; OSU's subcontract: \$109,261. (With Benny Evans.)

Spring 1993: Invited Member of the Program Committee for The Sixth Annual Conference on Technology in Collegiate Mathematics. (Newark, NJ, November, 1993.)

Fall 1993: Invited by The American Mathematical Society to organize a special session at the October 1994 meeting at Oklahoma State University entitled *Technology in the Classroom*.

Fall 1993: *Curriculum and Technology: Promoting Hands-on Experience and Dialogue Among High School, Community College and University Faculty*. A Dwight D. Eisenhower Grant funded in the amount of \$16,500.

Spring 1994: *Mathematics across the Curriculum*. National Science Foundation grant DUE-9354652 funded in the amount of \$266,994 for four years.

Summer 1994: Invited participant at *Project Impact*, an NSF-sponsored conference for project directors, Washington, D.C., May 31-June 3, 1994.

Summer 1994: Invited panelist to review NSF grant proposals, Washington, D.C., June 15-17.

**Fall 1994:** Invited panelist to review NSF grant proposals, Washington, D.C., September 9-10.

**Fall 1994:** *A Computer Laboratory to Support Mathematics Across the Curriculum and Calculus Reform.* National Science Foundation Instrumentation and Laboratory Improvement grant DUE-9451171 funded in the amount of \$40,256.

**Fall 1995:** Invited member of the national MAA Committee on Sessions of Contributed Papers, Jan. 1996 to Jan. 1999.

**Spring/Fall 1996:** co-Chair of the Program Committee and host of The Ninth Annual International Conference on Technology in Collegiate Mathematics, (Reno, November, 1996).

**Spring 1996:** *Workshops to Promote Reform of Business Calculus.* National Science Foundation grant DUE-9554709 funded for 2 years in the amount of \$38,000. (With Bill Newhall and Gail Ferrell of Truckee Meadows Community College.)

**Spring 1996:** Invited panelist to review NSF grant proposals, Washington, D.C., January 24 - 27.

**Spring 1996 - 1998:** Invited member of the **National Visiting Committee** for the NSF Project *Mathematics and its Applications across the Curriculum* at Rensselaer Polytechnic Institute, February, 1996.

**Fall 1996 - 1998:** Invited member of the national MAA Committee on Mathematics Across the Disciplines.

**Spring 1998:** Award of Distinction. Presented by The Communicator for the educational video "What Are the Odds?"

**Spring 2000:** *Online math testing, remediation and assessment strategy for engineering majors.* National Science Foundation grant DUE-9980687 funded in the amount of \$75,931 for two years. (With M. Sami Fadali, J. Mortensen, J. McGough.)

**Summer 2000:** Invited panelist to review NSF grant proposals, Washington, D.C., July 17-20.

**Fall 2000 - 2004:** Member of the *Quality Undergraduate Education Project*, a national consortium of colleges and universities funded by the Exxon- Mobile Foundation and the Pew Charitable Trusts to establish standards for college curricula.

**Spring 2001:** Member of the Advisory Committee for the National Numeracy Network, a project focusing on best practices in quantitative literacy at the school-college transition. Funded by the Pew Charitable Trusts.

**Spring 2002:** *A National Numeracy Center at UNR.* A grant from the Woodrow Wilson Foundation in the amount of \$26,000.

**Fall 2002:** *An Online Mathematics Assessment, Placement and Learning System.* A 3-year grant from the National Science Foundation (DUE 0206801) in the amount of \$157,344. (co-PIs Jeff Mortensen and Inmaculada Aban).

**Fall 2003:** Invited member of the National Council of Teachers of Mathematics *Assessment Task Force.*

**Fall 2003:** Winner of the Alumni Association's *2003 Senior Scholar Mentor award* for the college of Arts and Science. (Selected by outstanding senior as the faculty member who had the most significant influence on her academic achievements at UNR. )

**Fall 2004:** Nominated for the Regent's Academic Advisor Award.

**Summer 2005:** Invited panelist to review NSF grant proposals, Washington, D.C., July 24-26.

**Summer 2007:** Invited panelist to review NSF grant proposals, Washington, D.C., June 8-9.

## REFEREED MATHEMATICS PUBLICATIONS

1. *Banach spaces of Lipschitz functions and vector-valued Lipschitz functions*, Bull. A.M.S., 75 (1969), 1334-1338.
2. *Banach spaces of Lipschitz functions and vector-valued Lipschitz functions*, Trans. Amer. Math. Soc., 148 (1970), 147-169.
3. *Extreme points in tensor products and a theorem of de Leeuw*, Studia Math., 37 (1971), 159-162.
4. *Lipschitz function spaces for arbitrary metrics*, Bull. Amer. Math. Soc., 78 (1972), 702-705.
5. *A note on extreme and exposed points in  $C^n(I)$* , Math. Ann., 195 (1972), 95-102.
6. *A remark on a theorem of Caradus*, Bull. Austral. Math. Soc., 6 (1972), 355-356.
7. *Extreme measurable selections*, Proc. Amer. Math. Soc., 44 (1974), 107-112.
8. *Lipschitz spaces*, Pacific J. Math., 51 (1974), 177-186.
9. *A Note on Banach spaces of Lipschitz functions*, Pacific J. Math., 58 (1975), 475-482.
10. *Norm attaining operators on  $C(S)$  spaces* (with J. Wolfe) in **Banach Spaces of Analytic Functions**. Lecture Notes in Mathematics, Springer-Verlag, 1977.
11. *On the norm of the canonical projection of  $E^{***}$  onto  $E$*  (with J. Wolfe), Proc. A.M.S., 75 (1979), 50-52.
12. *Remarks on Banach spaces of compact operators*, J. Funct. Anal., 32 (1979), 304-311.
13. *Norm attaining operators* (with J. Wolfe), Studia Math., 65 (1979), 7-19.
14. *A note on the predual of  $Lip(S, d)$* , Colloquium Math., 40 (1979), 287-289.
15. *Strongly exposed points in  $L^p(\mu, E)$* , Rocky Mtn. J. Math., 10 (1980), 517-519.
16. *Norm attaining operators and simultaneously continuous retractions* (with John Wolfe), Proc. A.M.S., 86 (1982), 609-612.
17. *An elementary characterization of weak convergence of measures*, American Math. Monthly, 92 (1985), 136 - 137.

## PUBLICATIONS RELATED TO MATHEMATICS EDUCATION

1. *Materials for Motivation of Secondary School Mathematics Students*, Oklahoma State University, Stillwater, Oklahoma, 1982
2. *Differential Equations*, Oklahoma State University, Stillwater, Oklahoma, 1985
3. *Summing the powers of the integers using calculus*, The Mathematics Teacher, 79 (1986), 218-219
4. *An illustration of limits*, The Mathematics Teacher, 79 (1986), 722
5. *Discovering relationships between functions and graphs using a graphing program*, presented to NECC, 1988, 126--128. (With Pamala Čemen.)
6. *Some muMATH activities with large classes of differential equations and linear algebra*, Proceedings of the Conference on Technology in Collegiate Mathematics, Ohio State University, Addison-Wesley, 1989, 182--185
7. *The Mathematics Learning Resource Center at Oklahoma State University*, experiences with a large scale mathematics laboratory, Proceedings of the Conference on Technology in Collegiate Mathematics, Ohio State University, Addison-Wesley, 1989. (With Pamala Čemen.)
8. *The Microcomputer as a Laboratory Instrument*, Proceedings of the Conference on Technology in Collegiate Mathematics, Ohio State University, 1989, 156 - 159. (With Benny Evans.)
9. *Uses of Electronic Technology in the Undergraduate Mathematics Curriculum: A Resource Manual for College Mathematics Teachers*, Oklahoma State University, 1990. (With Benny Evans.) Written and published under NSF Grant USE--8950044.
10. *Calculus and Technology at OSU*, in **Priming the Calculus Pump: Innovations and Resources**, MAA Notes, No. 17, 1990. (with Benny Evans.)

11. *GyroGraphics*, in **Tools for Learning**, Agenda of the IBM Academic Computing Conference, Miami Beach, June 1990.
12. *Derive, GyroGraphics and the Mathematics Curriculum*, The Oklahoma Mathematics Teacher, Winter, 1991.
13. *The Oklahoma Experience: A Report on a Special Session*, Proceedings of the Third Annual International Conference on Technology in Collegiate Mathematics, Ohio State University, 1991. (With Benny Evans.)
14. *GyroGraphics<sup>sm</sup> in Calculus*, Proceedings of the Fourth Annual International Conference on Technology in Collegiate Mathematics, Portland State University, November, 1992.
15. *Classroom Demonstrations and Activities with the Microcomputer*, Oklahoma State University, 1992. (With Benny Evans.) Written and published under a Grant from the Oklahoma State Regents for Higher Education.
16. *Derive at Oklahoma State University*, in The Lab Resource Manual for Calculus to Accompany The Student Edition of Derive, Addison-Wesley, New York, N.Y., 1992. (With Benny Evans.)
17. *Discovering Calculus with Derive*, John Wiley and Sons, New York, N.Y., 1992, 193 pages. (With Benny Evans.)
18. *Computer exercises in Grossman's Calculus, 5th edition*, Academic Press. An extensive set of calculus problems. (With Benny Evans.)
19. *Tangent vectors and orthogonal projections*, The College Mathematics Journal, 24 (1993), 259--262.
20. *Fresh Perspectives on Old Topics*, Oklahoma State University, 1993, 135 pages. (With Benny Evans.) Written and published under NSF Grant USE--9154269.
21. *Linear Algebra with Derive*, John Wiley and Sons, New York, N.Y., 1994, 280 pages. (With Benny Evans.)
22. *Exploring Calculus with Derive*, (to accompany Calculus by Hughes-Hallett *et al.*, John Wiley and Sons, New York, N.Y., 1994, 314 pages. (With Benny Evans.)
23. *Discovering Calculus with Derive, 2nd ed.*, John Wiley and Sons, New York, N.Y., 1994, 300 pages. (With Benny Evans.)
24. *The great marble race: an assignment gone wrong*, The American Mathematical Monthly, 102 (1995), 506-514. (With Benny Evans.)
25. *A New On-line Testing and Remediation Strategy for Engineering Mathematics*, proceedings of the Frontiers in Education, Kansas City, MI, Oct. 2000. With M. Sami Fadali, J. Mortensen, J. McGough.
26. *Online Testing of Mathematics for Engineers*, electronic proceedings of the 13<sup>th</sup> Annual International Conference on Technology in Collegiate Mathematics, Atlanta, GA, Nov. 2000. archives.math.utk.edu/ICTCM/EP-13.html#papers. With M. Sami Fadali, J. Mortensen, J. McGough.
27. *A Web-Based Testing System With Dynamic Question Generation*, Proceedings of the Frontiers in Education, Reno, NV, Oct. 2001. With J. McGough, J. Mortensen, M. Sami Fadali.
28. *On-Line Engineering Mathematics Testing and Assessment*, Proceedings of the Frontiers in Education, Reno, NV Oct. 2001. With M. Sami Fadali, N. Henderson, J. Mortensen, J. McGough,
29. *Preliminary results of an Online Mathematics Testing Program for Engineers*, electronic proceedings of the 14<sup>th</sup> Annual International Conference on Technology in Collegiate Mathematics, Baltimore, November, 2001. archives.math.utk.edu/ICTCM/EP-14.html#papers. With M. Sami Fadali, J. Mortensen, J. McGough,
30. *Investigation of First-Year Engineering Students' Attitude Toward Peer-Tutoring*, Proceedings of the Frontiers in Education, Boston, Oct. 2002. With N. Henderson, M. Sami Fadali.
31. M. Sami Fadali, J. Johnson, J. McGough, J. Mortensen, *Online math testing for engineering majors*, presented at an invited contributed paper session at the AMS/MAA National Meeting, San Diego, January 2002.
32. *A Comprehensive Online Mathematics Assessment, Placement and Exit Testing Program*, the electronic proceedings of the International Conference on Technology in Collegiate Mathematics, November, 2002. With J. Mortensen and Inmaculada Aban.
33. *A Comprehensive Online Mathematics Assessment, Placement and Exit Testing Program*, Electronic Proceedings of the International Conference on Technology in Collegiate Mathematics, November 2003. With Inmaculada Aban and J. Mortensen.

34. J. Johnson and Alan Noell, *Quantitative Literacy using Excel*, Proceedings of the International Conference on Technology in Collegiate Mathematics, October 2004.
35. J. Johnson and Jeff Mortensen, *Online Readiness Testing and Assessment*, Proceedings of the International Conference on Technology in Collegiate Mathematics, March 2006.
36. J. Johnson, *Math Across the Curriculum at UNR*, invited article in MAA Notes Volume #70, **Current Practices in Quantitative Literacy**, 2006.