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EDUCATION

EdD, 1975 Indiana University (Mathematics Education)
MA, 1966 San Diego State University (Mathematics)
BA, 1960 University of Hawaii (Mathematics)
AA, 1958 Chaffey College (CA)

POSITIONS HELD

1971-2008 Salisbury University, Salisbury, MD
Provost (1998-2001)
Interim Dean (1989-90; 1996-97) R.A. Henson School of Science and Technology
Associate Dean, Richard A. Henson School of Science and Technology (1997-98; 2004-05)
Chair (1984-87), Department of Mathematics and Computer Science
Mathematics Faculty (1971-present), promoted to professor in 1985
Professor Emeritus (2008)

1967-1969 James Madison University, Harrisonburg, VA
Assistant Professor, Mathematics

1966-1967 Palm Springs High School, Palm Springs, CA
Teacher, Mathematics

1962-1965 Punahou School, Honolulu, HA
1960-1961 Teacher, Mathematics

1961-1962 University of Hawaii
Assistant Instructor, Mathematics

PROFESSIONAL ACTIVITY

Publications:

"The Calculator-Based Laboratory and the Calculator-Based-Ranger in a Modeling Course for Middle School Teachers," with S. Hetzler and R. Tardiff, in T3 2003 International Conference Proceedings, Texas Instruments, 2003.

"How's the Weather up There: Predicting Weather for Costal Mountains," with M. Folkoff and S. Hetzler, in Environmental Mathematics in the Classroom, B.A. Fusaro & P.C. Kenschaft, editors, Mathematical Association of America, 2003.

"Collaborating to Cross Boundaries: University of Maryland Eastern Shore and Salisbury State University" with E. Nnadi, P. Creighton, H. Jopp, in Higher Education 2000: What will be New? What will be Different?, Middle States Commission on Higher Education, Philadelphia, 2000.

"A Mathematical Modeling Course for Elementary Education Majors: Instructors' Thoughts," with T. Horseman, in Journeys of Transformation, M.B. Gardner and D.L. Ayers, editors, Maryland Collaborative for Teacher Preparation (MCTP), College Park, MD, 1998.

“An Introductory Course on Mathematical Models and Modeling: A Constructivist Approach for Middle School Teachers,” with T. Horseman, in Teaching and Learning Mathematical Modelling: Innovation, Investigation, Applications, S. Houston, W. Blum, I. Huntley, N. Neill, editors, Albion Publications, Chichester, UK, 1997.

Mathematical Models and Modeling: Instructor's Guide, Maryland Collaborative for Teacher Preparation (MCTP), College Park, MD: 1995, 106 pages.

“A Mathematical Modeling Course for Elementary Education Majors,” with T. Horseman, in Mathematical Modelling: Abstracts of Presentations at the 7th International Conference on the Teaching of Mathematical Modelling and Applications, S.K. Huston and N.T. Neill editors, University of Ulster, 1995

“Beginnings and Opportunities,” Academically Speaking, Salisbury State University, vol. 5 (1), September 1989, 2.

“Exemplary Software for the Mathematics Classroom,” School Science and Mathematics, vol. 87 (6), October 1987, 501-508.

“KNOWOL: The Knowledge Oriented Language,” School Science and Mathematics, vol. 87 (6), October 1987, 523.

The Effects of Activity Instruction in Mathematics on Prospective Elementary School Teachers, (Indiana University, 1975) DAI 36A:827-828, August 1975.

Papers/Talks Presented (Since 1986):

“Exploring Change through Activities, Graphs, and Mathematical Models,” Southern Regional Conference National Council Teachers of Mathematics (NCTM), New Orleans, November, 2004.

“Middle School Modeling Activities Linking Mathematics and Science,” NCTM Southern Regional Conference, Charleston SC, November 2003.

“The CBL and CBR in a Modeling Course for Middle School Teachers,” with S. Hetzler and R. Tardiff, T³ 2003 International Conference, Nashville, 2003.

“Middle School Modeling Activities Linking Math and Science,” Maryland Council of Teachers of Mathematics’ (MCTM) Annual Conference, Baltimore, October 2002.

“Inter-Institutional University Collaboration: The University of Maryland Eastern Shore & Salisbury State University,” with E. Nnadi, Seventh Annual Conference of the Coalition of Urban and Metropolitan Universities, St. Louis, March 2001.

“Hands-On Activities to Explore Patterns of Change,” with R.M. Tardiff, MCTM Eastern Shore Regional Conference, Salisbury, MD, February 2001.

“Building and Sustaining Inter-Institutional Collaborative Degree and Non-Degree Programs,” with E. Nnadi, American Association of Higher Education Conference on Faculty Roles & Rewards, Tampa, February 2001.

“Stella and Mathematical Modeling,” with R.M. Tardiff, Annual Conference MCTM, Suitland, MD, October 2000.

“Investigating Patterns of Change through Data Gathering and Model Fitting,” NCTM Southeast Regional Conference, Mobile, March 2000.

“Collaborating to Cross Boundaries: University of Maryland Eastern Shore and Salisbury State University,” National Conference on Teacher Quality and Annual Conference of the Middle States Commission on Higher Education, with E. Nnadi, Washington D.C., December 1999.

“Using Software Tools to Model and Build Understanding of Biological, Physical, and Social Dynamical Systems,” NCTM Western Regional Conference, Honolulu, June 1999.

“Integrating Science and Math in the Middle and High School,” 19th Annual Microcomputers in Education Conference, Tempe, AZ, March 1999.

“Clocks, Speedometers, and Odometers: Fundamental Theorem of Calculus without Calculus,” Writing Across the Curriculum Mini-Conference, Salisbury State University, February 1999

“Experimentation and Exploration: Adventures in First Year College Mathematics,” Mathematics Education Reform (MER) Conference on Developing Leadership in Elementary and Middle School Mathematics Education, Chicago, May 1998.

“Understanding and Modeling Biological, Physical, and Social Dynamical Systems,” with M. Folkoff and R. Tardiff, 18th Annual Microcomputers in Education Conference, Tempe, AZ, March 1998.

“Implementing the Modeling Process in Dynamical Systems,” with M. Folkoff and R. Tardiff, 18th Annual Microcomputers in Education Conference, Tempe, AZ, March 1998.

“Students’ Explorations in Mathematical Modeling: Pendulums, Marathon Races, and Population Growth,” NCTM Southern Regional Conference, Dallas, February 1998.

“How’s the Weather Up There?” with S. Hetzler and M. Folkoff, MAA/AMS Joint Mathematics Meetings, Baltimore, January 1998.

“Mathematical Modeling: Instructors’ Perspectives,” with T. Horseman, “Shaping the Future of Mathematics and Science in Maryland,” hosted by the MCTP, College Park, MD, January 1998.

“Student Explorations in Math Modeling,” MCTM Annual Conference, Rockville, MD, October 1997.

“Using Physics Activities to Link Science and Mathematics,” Forum on Student Centered/Constructivist Instruction and Assessment, University of Maryland Eastern Shore, Princess Anne, MD, August 1997.

“Connecting Science and Mathematics Using Microcomputer-Based Laboratory (MBL) Activities: A Modeling Approach,” NCTM Eastern Regional Conference, Rochester, NY, May 1997.

“Using Laboratory Activities and Modeling to Link Science and Mathematics,” with T. Horseman, NCTM Southern Regional Conference, Atlanta, February 1997.

“Using Calculator- and Microcomputer-Based Lab Activities to Link Mathematics and Science,” with D. Parker, NCTM Southern Regional Conference, New Orleans, January 1997.

“Hands-on Activities for Developing Concepts in Statistics, Algebra, and Calculus,” with T. Horseman, NCTM Eastern Regional Conference, Baltimore, October 1996. Presented also at Eastern Region Conference, MCTM, Salisbury, MD, March 1997.

“Automated Data Collection to Build an Understanding of Real-World Phenomena,” NCTM 74th Annual Meeting, San Diego, April 1996.

“Data Analysis in Science Experiments: Looking for Mathematical Patterns,” with G. Rossi, 16th Annual Microcomputers in Education Conference, Tempe, Arizona, March 1996.

“Connecting Mathematics and Physical Science,” NCTM Eastern Regional Conference, Philadelphia, November 1995.

“Becoming Constructivist Teachers for the Maryland Collaborative for Teacher Preparation,” with K. Benbury, MCTM Annual Conference, Ellicott City, MD, October 1995.

“Mathematical Models and Modelling for Middle School Teachers,” with T. Horseman, Seventh International Conference on Teaching Mathematical Modelling and Applications, Belfast, Northern Ireland, July 1995.

“Using Microcomputer-Based Laboratory Activities to Link Science and Mathematics,” with M. Folkoff, Fifteenth Annual Microcomputers in Education Conference, Tempe, AZ, March 1995.

“Mathematical Connections - Relating Math to Other Disciplines Through Applications in Sciences,” NCTM Eastern Regional Conference, Somerset, NJ, November 1994.

“Integrating Mathematical Model Building with Physical Geography in General Education Classes: The Mountain Problem,” with M. Folkoff, Annual Meeting of the Pennsylvania Geography Society, Somerset, PA, October 1994.

“Recognizing Patterns in Data and Curve Fitting,” Making Mathematics Count: The Second Annual Workshop for High School Mathematics Teachers, Society for Industrial and Applied Mathematics (SIAM), Philadelphia, July 1994.

“Integrating Biology, Geography, and Mathematics with Spreadsheets,” Fourteenth Annual Microcomputers in Education Conference, Tempe, AZ, March 1994.

“Science and Math Activities for Middle School Using Spreadsheets,” CREST Regional Conference on Technology Use in Science and Mathematics, Salisbury, MD, February 1994

“Relating Mathematics to Other Fields through Activities in Modeling,” NCTM Southern Regional Conference, Jackson, MS, October 1993.

“Helping Students Learn to Apply Mathematics,” NCTM Eastern Regional Conference, Pittsburgh, PA, October 1993.

“Using Computers in Teaching Geometry,” Thirteenth Annual Microcomputers in Education Conference, Tempe, AZ, March 1993.

“Implementing the Standards: Specific Tips,” Delaware Council Teachers of Mathematics (DCTM), Annual Meeting Wilmington, DE, October 1991.

“Programming After BASIC ... What Next?” Eastern Shore Computer Bowl, Salisbury, MD, March 1991.

“Implementing NCTM Standards in the Classroom,” DCTM Annual Meeting, Wilmington, DE, October 1991.

“Discrete Mathematics vs Calculus in Problem Solving,” Mathematics Day, Thomas Jefferson School for Science and Technology, Alexandria, VA, April 1990.

“Computers and Mathematics: Ideas for Student Involvement,” Eastern Shore Computer Bowl, Salisbury, MD, March 1990.

“Mathematical Basis for Computer Graphics,” DCTM Annual Meeting, Wilmington, DE, October 1988.

“Choosing Mathematics Software,” Maryland Congress of Parents and Teachers’ Convention, Ocean City, MD, December 1987.

“Artificial Intelligence in Mathematics Instruction,” MCTM Annual Conference, Westminster, MD, October 1987.

“Experimenting with AI in the Middle Grades,” DCTM Annual Meeting, Wilmington, DE, October 1987.

“A Look at Logo,” ASU Educational Media & Computers Lecture Series, Tempe, AZ, March 1987.

“Problem Solving with Logo,” DCTM Annual Meeting, Lewes, DE, October 1986.

“Teaching Better Programming Habits: Logo vs BASIC,” NCTM 64th Annual Meeting, Washington D.C., April 1986.

Workshops/Mini-Courses Conducted (Since 1989):

“Mathematical Modeling,” a one-day workshop on mathematical modeling for secondary school teachers of mathematics offered as part of Queen Anne's County's Summer Institute on Student Learning, June 27, 2003.

“Mathematical Models and Modeling for Teachers,” A three-graduate-credit, seven-day workshop on mathematical modeling for middle school teachers of mathematics offered at Salisbury University in the summer of 2002. The workshop was funded by an NSF grant.

“Using a Modeling Approach in Integrating Mathematics and Science,” A half-day workshop for teachers in the Mathematical Studies in Modeling at Mount Saint Mary's program, Emmitsburg, MD, October, 1994.

“Mathematical Modeling - A Three-Hour Mini-Course,” NCTM 72nd Annual Meeting, Indianapolis, IN, April 1994.

“Discrete Mathematics and Problem Solving,” NCTM Southeast Regional Conference, Baltimore, MD, November 1991.

“Problem Solving with Discrete Mathematics,” Microcomputer Workshop, NCTM Southeastern Regional Conference, Chattanooga, TN, March 1990.

“Geometric and Algebraic Techniques Useful in Computer Graphics,” Microcomputer Workshop, NCTM Northeastern Regional Conference, Philadelphia, PA, December 1989.

Grants/Contracts:

Applicant, Principle or Co-Principle Investigator for the following awarded grants or contracts: Maryland Higher Education Commission to develop “Standards and Assessments for Science Teachers,” 2001-2003 (\$60,000); Georgia State University/ Pew Trust contract for “QUE: Quality in Undergraduate Education,” 1999-2000 (\$21,000); Maryland Humanities Commission grant for “Chesapeake Bay in the 21st Century Conference,” 2000 (\$8,493); Maryland 2000 Commission grant for “Chesapeake Bay in the 21st Century Conference,” 2000 (\$1,500); Maryland Higher Education Commission collaborative grant to support “Faculty Development Initiative,” 2000-2001 (\$36,875); National Science Foundation grant to “Study the Need for an Engineering School,” 1996-1997 (\$99,959)

Regional Director, Combining Resources in Engineering, Science & Technology (CREST). CREST's mission was to facilitate the development of partnerships between government agencies, business, higher education, and schools, 1991-1994. Organized CREST's three regional conferences in Salisbury, MD, 1992-1994. (\$12,000)

Participant, Maryland Collaborative for Teacher Preparation (MCTP) 1993-1997. MCTP was a six million dollar, NSF funded, project to develop, and implement, an innovative interdisciplinary model for the preparation of middle school teachers of science and mathematics. Performed content strand analysis and developed interdisciplinary learning activities. (\$20,000)

Numerous small grants to support travel and purchase equipment or software from Henson School Enhancement Fund, Faculty Development Committee, and SSU Foundation. (\$10,000)

Other Recent Activity:

Negotiated an agreement for a collaborative program in electrical engineering with the University of Maryland College Park (UMCP), University of Maryland Eastern Shore (UMES), and Salisbury University (SU). UMCP's program in electrical engineering is now delivered to the Eastern Shore of Maryland. Lecture courses in the last two years are conducted via distance learning. The program started in the Fall of 1999

Memberships: The National Council of Teachers of Mathematics, Maryland Council of Teachers of Mathematics, Phi Delta Kappa, Phi Eta Sigma, American Association for Higher Education

Hobbies: Distance Running, Track & Field, Travel, Reading, Cycling

Coaching:

Considerable experience coaching track and cross country over the years; sometimes as head coach and sometimes as volunteer assistant coach. (Punahou School (HI), J.M. Bennett High School (MD), and Salisbury University)

References:

Dr. Philip D. Creighton, President
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