

## TEACHING VITA

Rayford L. Ball, Ph.D.

Associate Professor of Physics  
Sul Ross State University  
RBall@Sulross.EDU

**Personal:** E-Mail [RBall@sulross.edu](mailto:RBall@sulross.edu) Alpine, Texas, 79831 Office: (432) 837-8249

**Expertise:** Physics, Math, Astronomy, Educational Administration in Community Colleges,

**Education:** Ph.D. (Educational Administration / Minor: Computer Science) - New Mexico State University, May 1994. (Dissertation Title: Analysis of Classical Decision-Making Models in Texas Multi-Unit Community College Districts, Topic: Community College Governance - Awarded outstanding dissertation from the College of Education, New Mexico State University, 1993-1994)

M.A. (Physics / Minor: Math) - University of Texas at Austin, 1972. (Thesis Title: Photoproduction of Some Strange Hadrons. Topic: Nuclear Physics)

B.S. (Physics / Minor: Math) - University of Houston, 1968 (awarded Magna Cum Laude)

**Administrative** (Aug. 2009) Associate Professor of Physics

**Experience:** July 1994 to May 2004, Responsible for Biology, Chemistry, Physics, Geology, and Physical Science programs on the South Campus.

Senator - Academic Senate (Tarrant County Junior College) (Sept. 1995 - May 1999, and - Aug 2008 - Aug, 2009 Senator-at-Large)

Graduate Assistant (NMSU / EMD Department) - Aug. 1991 to May 1994

Department Chairman at Odessa College, Odessa, Texas

Computer Information Systems Department - Aug. 1979 to May 1990

Computer Science Department - Aug. 1987 to May 1990 (I created this department)

Engineering Department - Aug. 1979 to May 1981

Physics Department - Aug. 1979 to May 1981

Chairman, Computer Review Committee (Odessa College) - Aug. 1987 to May 1990

Chairman, Various Faculty Search Committees (Odessa College) - Aug. 1979 to May 1990

Chairman, Retention Committee (Odessa College) - 1985-86

Member, Faculty Tenure Committee (Odessa College) - 1983-84

Member, Administrative Computer System Committee (Odessa College) - 1987-88

**Teaching** Tarrant County College - Ft. Worth, Texas - July, 1994 to Present

**Experience:** Teach physics (algebra-based lectures and labs and calculus-based lectures and labs), astronomy (introductory planetary and stellar astronomy lectures and labs), remedial math courses, and physical science (lecture and lab).

Tenured Professor of Natural Sciences (awarded Spring 1997)

New Mexico State University - Astronomy Department

(Research / Teaching Assistant - Aug. 1990 to May 1991) Taught undergraduate astronomy labs and lectures.

Doña Ana Branch Community College Las Cruces, NM - (Part-Time Instructor - Aug. 1991 to May, 1994) Taught Computer Science courses and labs.

Odessa College - Aug. 1978 to May 1990 (Associate Professor - Awarded Tenure 1982)  
Awarded Minnie Piper Teaching Excellence Award by faculty vote - 1985  
Taught physics lectures and labs (both calculus-based and algebra-based), math (trig and analytic geometry)  
Taught computer courses in basic, Pascal, FORTRAN, database systems, numerical methods, computer data structures, and introductory computer information systems  
Also taught non-credit courses in computer science

North Texas State University (University of North Texas) (Graduate Asst. - Summer 1980)  
Taught College Physics (algebra-based)

Permian High School - Odessa, Texas (Science Teacher - Sept. 1972 to June 1978)  
Taught Physics, Chemistry, Electronics, Physical Science

University of Texas at Austin (Physics Teaching Assistant - Sept. 1971 to May 1972)  
Taught Undergraduate Physics Labs and Physical Science Classes and Labs

**Other Professional** Computer Consultant - Since 1985 I have designed, written, sold, and maintained business-related software in Pascal, dBase III+, and BASIC.

Experience:

University of Texas at Austin (Civil Engineering Dept. - March 1971 to Aug. 1971)

Write and debug data handling Fortran software for a Texas water-use research project

TRW Systems, Houston, Texas - Feb. 1969 to May 1970

Computer Programmer / Analyst - Help maintain, update, document, and alter TRW's spacecraft simulation software under a NASA contract (Apollo 11 and Apollo 12)

Shell Oil Company, Midland, Texas - June 1968 to Jan. 1969

Geophysicist - analyzed and reduced analog geophysical and survey data from seismic field parties using Shell-written software

**Publications** Astronomy Research in the Community College Setting. Rocky Mountain Educational and Research Association, 1993 Fall Conference, Las Cruces, NM, October 14-16.

The Radio Properties of cD Galaxies in Abell Clusters. II. The VLA Sample, *The Astronomical Journal*, (105) 1, January 1993

**Courses Taught:**

2009 Fall-

Phys (1401) College Physics I

Phys (2401) Engineering Physics I

Astro (1401) Astronomy I

2010 Spring -

Phys (1402) College Physics 2

Phys (2402) Engineering Physics 2

Astro (1402) Astronomy 2

2010 Fall -

Phys (1401) College Physics 1

Astro (1401) Astronomy 1

2011 Spring

Date: 1/25/2012

Page 2

