

**LORI E. SEWARD, Ph.D.**

Senior Instructor, Operations and Information Management

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**EDUCATION**

**Ph.D.**, 1998, Operations Research, Industrial and Systems Engineering Department, Virginia Tech, Blacksburg, VA

Dissertation Title: "Preventive Maintenance Planning for a Multi-task System"

Abstract: An application of probability modeling and renewal theory in the study of the time process of a system designed to perform multiple tasks. Past research has focused on systems composed of continuously demanded components. The type of system considered here consists of continuously demanded components and intermittently demanded components. The modeling approach assumes the system is subject to a Modified Age Replacement Policy.

**Ph.D. Candidate**, 1991-1994, Operations Research, Mathematics and Computer Sciences Department, Colorado School of Mines, Golden, CO

Recipient of a Mining and Minerals Resource Research Institute (MMRRI) Fellowship, Fall 1991, Spring 1992, Fall 1993 Topic: Mine Production Scheduling

**M.Sc.**, 1985, Operations Research, Industrial Engineering and Operations Research Department, Virginia Tech, Blacksburg, VA

Thesis Title: "Multiple Stress, Multiple Component Stress Screening Cost Model"

**B.Sc.**, 1984, Industrial Engineering and Operations Research, Virginia Tech, Blacksburg, VA

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**INSTRUCTIONAL EXPERIENCE**

*Senior Instructor*, June 2010 – present, Management Division, Leeds School of Business, University of Colorado, Boulder, CO  
Courses: Undergraduate - Business Statistics, Supply Chain Management, Management of Service Operations, Graduate - Quantitative Methods, Business Process Design, Decision Making for Managers

*Senior Instructor*, January 2008 – May 2010, Decision Sciences Department, Business College, University of Colorado Denver, Denver, CO

Courses: MBA Data Analysis for Managers, Introduction to Business Statistics, Decision Analysis

*Senior Instructor*, June 2001 – December 2007, Systems Division, Leeds School of Business, University of Colorado, Boulder, CO

Courses: MBA Quantitative Methods, Introduction to Business Statistics, Supply Chain Systems

*Instructor*, August 1999 – May 2001, Systems Division, Leeds School of Business, University of Colorado, Boulder, CO

Courses: Statistics, Operations Management, Total Quality Management

*Adjunct Faculty*, January 1998 – June 1998, Statistics and Operations Technology Department, University of Denver, Denver, CO

Courses: Statistics I and II

*Instructor*, July 1997 – December 1997, Industrial And Systems Engineering Department, Virginia Tech, Blacksburg, VA

Courses: Probabilistics in Operations Research, Engineering Economy

*Instructor*, January 1997 – June 1997, Mathematical and Computer Sciences Department, Georgia State University, Atlanta, GA

Course: Algebra

*Adjunct Faculty*, January 1990 – December 1992, Mathematical and Computer Sciences Department, Colorado School of Mines, Golden, CO

Courses: Statistics, Algebra, and Trigonometry

*Instructor*, August 1988 – December 1988, Business Department, University of North Carolina-Charlotte, Charlotte, NC

Course: Statistics

*Instructor and Teaching Assistant*, September 1984 – December 1986, Industrial Engineering and Operations Research Department, Virginia Tech, Blacksburg, VA

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## **RESEARCH**

*Research Assistant*, Fall 1993 – Spring 1994, Colorado School of Mines, Golden, CO  
Project: Conditional simulation of an ore body using geostatistical information

*Summer Research Position*, 1992, Newmont Gold Company, Denver, CO

Project: Installed and tested a computer program that described the evolution of an open pit gold mine during production

*Research Assistant*, Fall 1991 – Spring 1993, Colorado School of Mines

Project: Developed algorithms that provided both short and long term schedules for ore removal and production at an open pit gold mine (This work was funded in part by an MMRRI Fellowship.)

*Summer Research Position*, 1984, IBM Corporation, Binghamton, NY

Project : Modeled the reliability enhancement of electronic components through accelerated stress screening

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## **INDUSTRY CONSULTING**

June-August 2010 and August 2009. Provided statistical expertise to Verdeo Group, a consulting organization to the natural gas industry. Helped draft a proposal to implement a new sampling technique for gauging greenhouse gas emission reductions.

July 2009. Provided 16 hours of in-house statistics instruction for Marketing Research group at R.H. Donnelley.

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## **INDUSTRY EMPLOYMENT**

*Quality Engineer*, May 1988 – December 1989, Rexham Corporation, Lancaster, SC

Responsibilities: Designed and taught a quality control/process control education program for employees at all levels. Worked with engineering groups in trouble shooting manufacturing problems. Acted as liaison between management and manufacturing in quality issues.

*Support Engineer*, December 1986 – January 1988, GTE Corporation, Westborough, MA

Responsibilities: Designed maintenance plans for weapons systems. Performed analysis of Availability, Maintainability, and Reliability measures of weapons systems.

*Industrial Engineer Intern*, June 1983 – September 1983, Union Camp Paper Company, Franklin, VA

Responsibilities: Time studies in packaging division, Design of phone network in office buildings, various project assistance

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**PUBLICATIONS**

David P. Doane and Lori E. Seward, *Applied Statistics in Business and Economics*, McGraw-Hill Irwin, 3<sup>rd</sup> edition, 2010.

David P. Doane and Lori E. Seward, *Essential Statistics in Business and Economics*, McGraw-Hill Irwin, 2<sup>nd</sup> edition, 2009.

David P. Doane and Lori E. Seward, "Are Textbooks Fairly Priced?", Proceedings of the 2008 Joint Statistical Meetings, Denver, CO.

Lori E. Seward, Joel A. Nachlas, "Availability Analysis for Multi-Task Production Systems", *International Journal of Flexible Manufacturing Systems*, Volume 16 Number 1 January 2004, 91-110.

Lori E. Seward, Instructor's Solutions Manual for *The Practice of Business Statistics*, W.H. Freeman and Company, New York, 2003.

Lori E. Seward, Joel A. Nachlas, and Benjamin S. Blanchard, "Probabilistic Applications in Life Cycle Costing", Proceedings Third International Logistics Congress, Florence, Italy, 1987, 17-20.

Joel A. Nachlas, Lori E. Seward, and Blair A. Binney, "Multiple Stress Assembly-Level Stress Screening", 1986 Proceedings Annual Reliability and Maintainability Symposium, 40-43.

Lori E. Seward, "Cost Efficient Multiple Stress, Multiple Component Stress Screening", Proceedings 1985 S.E. TIMS, Myrtle Beach, SC, 323-326, First Place: Student Paper Competition.

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**WORK IN PROGRESS**

David P. Doane and Lori E. Seward, *Applied Statistics in Business and Economics*, 4<sup>th</sup> edition, McGraw-Hill Irwin, Publication Date: 2012.

David P. Doane and Lori E. Seward, "Measuring Skewness: A Forgotten Statistic?" In revision for *Journal for Statistics Education*

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