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**EDUCATION**

- |      |                      |                                                                              |
|------|----------------------|------------------------------------------------------------------------------|
| 1988 | Ph.D.,<br>Statistics | Virginia Polytechnic Institute and State University, Blacksburg,<br>Virginia |
| 1986 | M.S.,<br>Statistics  | Virginia Polytechnic Institute and State University, Blacksburg,<br>Virginia |
| 1981 | B.A.,<br>Philosophy  | University of Tennessee, Knoxville, Tennessee                                |

**EMPLOYMENT**

- |                             |                                                                                                                                                                                                                                                         |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| July, 1999 – Present        | Professor, Department of Statistics, Virginia Tech                                                                                                                                                                                                      |
| July 1999 – June 2006       | Head, Department of Statistics, Virginia Tech                                                                                                                                                                                                           |
| August, 1993 – June, 1999   | Associate Professor; Department of Statistics,<br>University of Florida                                                                                                                                                                                 |
| August, 1988 – August, 1993 | Assistant Professor; Department of Statistics,<br>University of Florida                                                                                                                                                                                 |
| Sept., 1985 - July, 1988    | Graduate Assistant; Department of Statistics, VPI& SU                                                                                                                                                                                                   |
| Oct., 1981 - Sept., 1985    | Process Engineer; Faber-Castell Corp., Lewisburg,<br>Tennessee<br>Duties included: (1) responsibility for process<br>improvement of the pencil lead operation; and<br>(2) implementing a statistical quality control program<br>throughout the company. |

## HONORS AND AWARDS

Editor-in-Chief, *Quality Engineering* (2009 – 2010)

Editor, *Journal of Quality Technology* (1998-2000); Editor-Elect (1997).

2010 Shewhart Medal, the ASQ career award given annually to the person not previously so honored who has demonstrated the most outstanding technical leadership in the field of modern quality control, especially through the development to its theory, principles, and techniques.

2015 George Box Medal, the European Network for Business and Industrial Statistics (ENBIS) career award given each year to an extraordinary statistician who has remarkably contributed with his/her work to the development and the application of statistical methods in European business and industry.

1990 Brumbaugh Award for the paper published in an American Society for Quality Control journal which has made the greatest contribution to the development of industrial applications of quality control.

2011 William G. Hunter Award by the American Society for Quality Statistics Division for excellence in statistics as a communicator, a consultant, an educator, an innovator, an integrator of statistics with other disciplines and an implementer who obtains meaningful results.

2006 Lloyd Nelson Award by the American Society for Quality Statistics Division for the paper published in the *Journal of Quality Technology* in the previous year that had the greatest immediate impact to practitioners.

2000 Youden Address, ASA – ASQ Fall Technical Conference

A 2013 NESC (NASA Engineering Safety Council) Engineering Excellence Award for collaborations with the NESC.

A 2011 NESC Group Achievement Award for the Composite Overwrapped Pressure Vessel (COPV) Reliability Analysis Subteam: in recognition of outstanding contributions in the cross-functional problem-solving and methods development during this task. Also receiving the award were two people who worked on the project as graduate students, Laura Freeman and Matt Williams.

A 1993 Teaching Incentive Program (TIP) Award, University of Florida.

A 1990 College of Liberal Arts and Sciences Undergraduate Teaching Award.

Fellow of the American Statistical Association (Elected in 2001).

Fellow of the American Society for Quality (Elected in 2001).

Academician, International Academy for Quality (Elected in 2010)

Elected Member, International Statistical Institute (Elected in 2005)

## **RESEARCH INTERESTS**

Use of Experimental Designs for Quality Improvement, Response Surface Methodology, Statistical Quality Control, Regression Analysis.

## **PUBLICATIONS**

### ***Books***

Vining, G.G. (1998). *Statistical Methods for Engineers*. Belmont, Ca.: Duxbury Press.

Vining, G.G. and Kowalski, S.M. (2006). *Statistical Methods for Engineers*, 2<sup>nd</sup> ed., Belmont, Ca.: Brooks/Cole. (2011) 3<sup>rd</sup> ed., Boston, Ma: Brooks/Cole.

Park, S.H. and Vining, G.G., Editors. (1999). *Statistical Monitoring and Optimization for Process Control*. New York: Marcel Dekker.

Montgomery, D.C., Peck, E.A., and Vining, G.G. (2001). *Introduction to Linear Regression Analysis*, 3rd ed. New York: John Wiley. (2006) 4<sup>th</sup> ed. (2012) 5<sup>th</sup> ed. (in press).

Myers, R.H., Montgomery, D.C., and Vining, G.G. (2002). *Generalized Linear Models with Applications in Engineering and Science*, New York: John Wiley.

Myers, R.H., Montgomery, D.C., Vining, G.G., and Robinson, T.J. (2011). *Generalized Linear Models with Applications in Engineering and Science* 2<sup>nd</sup> ed., New York: John Wiley.

### ***Articles in Refereed Statistical Journals***

Vining, G.G. and Myers, R.H. (1990). "Combining Taguchi and Response Surface Philosophies: A Dual Response Approach," *Journal of Quality Technology*, 22, pp 38-45.

Khuri, A.I. and Vining, G.G. (1991). "Conditions Required for the Mean Response to Fall Within Specified Bounds," *Journal of Statistical Planning and Inference*, 28, pp 125-136.

Vining, G.G. and Myers, R.H. (1991). "A Graphical Approach for Evaluating Response Surface Designs in Terms of the Mean Squared Error of Prediction," *Technometrics*, 33, pp 315-326.

Myers, R.H., Vining, G.G., Giovannitti-Jensen, A., and Myers, S.L. (1992). "Variance Dispersion Properties of Second-Order Response Designs," *Journal of Quality Technology*, 24, pp 1-11.

Myers, R.H., Khuri, A.I., and Vining, G.G. (1992). "Response Surface Alternatives to the Taguchi Approach," *American Statistician*, 46, pp 131-139.

Myers, R.H. and Vining, G.G. (1992). "Taguchi's Robust Parameter Design," V.N. Nair, ed. *Technometrics*, 34, pp 132-135, 144, 148, 159.

Vining, G.G., Cornell, J.A., and Myers, R.H. (1993). "A Graphical Approach for Evaluating Mixture Designs," *Applied Statistics*, 42, pp 127-138.

Vining, G.G. (1993). "A Computer Program for Generating Variance Dispersion Graphs," *Journal of Quality Technology*, 25, 45-60.

Cornell, J.A., Randles, R.H., and Vining, G.G. (1995). "Challenges in Teaching Short Courses by an Academic Department: The University of Florida Experience," *American Statistician*, 49, 195-200.

Vining, G.G. and Schaub, D. (1996). "Experimental Designs for Estimating Both Mean and Variance Functions," *Journal of Quality Technology*, 28, 135-147.

Vining, G.G. and O'Donnell, E.M. (1997). "Prediction Properties of the Process Variance Using the Combined Array," *Frontiers in Statistical Quality Control*, Lenz, H.J and Wilrich, P.T., eds., pp 253-277.

O'Donnell, E.M. and Vining, G.G. (1997). "A Mean Squared Error of Prediction Approach to the Analysis of a Combined Array," *Journal of Applied Statistics*, 24, 761-774.

Vining, G.G. and Reynolds, M.R., Jr. (1997), "A Multilevel Sampling Interval Approach to Control Charts," *Journal of Quality Technology*, 29, 418-428..

Vining, G.G. and Bohn, L. (1998). "Response Surfaces for the Mean and the Process Variance Using a Nonparametric Approach," *Journal of Quality Technology*, 30, 282-291.

Vining, G.G. (1998). "A Compromise Approach to Multiresponse Optimization," *Journal of Quality Technology*, 30, 309-313.

Vining, G.G., Schaub, D., Modigh, C. (1999). "Experimental Strategies for Estimating Mean and Variance Functions," *Statistical Monitoring and Optimization for Process Control*, Park, S.H. and Vining, G.G., eds., 291-304.

Kowalski, S., Cornell, J.A., and Vining, G.G. (2000). "A New Model and Class of Designs for Mixture Experiments with Process Variables," *Communications in Statistics – Theory and Methods*, 29, 2255-2280.

Kowalski, S. and Vining, G.G. (2001). "Split-Plot Experimentation for Process and Quality Improvement," *Frontiers in Statistical Quality Control*, 6th ed., Lenz, H.J. and Wilrich, P.T., eds., pp. 335-350.

Kowalski, S., Cornell, J.A., and Vining, G.G. (2002). "Mixture Experiments with Process Variables under Restricted Randomization," *Technometrics*, 44, pp. 72-79.

Myers, R.H., Montgomery, D.C., Vining, G.G., Kowalski, S.K., Borror, C.M. (2004). "Response Surface Methodology: A Retrospective and Current Literature Survey," *Journal of Quality Technology*, 36, pp. 53-77.

Montgomery, D.C., Myers, R.H., Carter, W.H., Jr., and Vining, G.G. (2005). "The Hierarchy Principle in Designed Industrial Experiments," *Quality and Reliability Engineering International*, 21, pp. 197-201.

Vining, G.G., Kowalski, S.M., and Montgomery, D.C. (2005). "Response Surface Designs within a Split-Plot Structure," *Journal of Quality Technology*, 37, pp. 115-129.

Vining, G.G. and Kowalski, S.M. (2006). "An Overview of Composite Designs Run as Split-Plots," *Frontiers in Intelligent Statistical Quality Control*, 8<sup>th</sup> ed., Lenz, H.J. and Wilrich, P.T., eds., pp. 342-351.

Parker, P.A., Kowalski, S.M., and Vining, G.G. (2006). "Classes of Split-Plot Response Surface Designs for Equivalent Estimation," *Quality and Reliability Engineering International*, 22, pp. 291-305.

Kowalski, S.M., Vining, G.G., Montgomery, D.C., and Borror, C.M. (2006). "Modifying a Central Composite Design to Model the Process Mean and Variance when There are Hard-to-Change Factors," *Applied Statistics*, 55, pp. 615-630.

Vining, G.G. (2007). "Adapting Response Surface Methodology for Computer and Simulation Experiments," *The Grammar of Technology Development*, Tsubaki, H., Nishina, K., Yamada, S. eds., pp. 127-134.

Kowalski, S.M., Parker, P.A., and Vining, G.G. (2007). "Tutorial on Split-Plot Experiments," *Quality Engineering*, 19, pp. 1-15.

Parker, P.A., Kowalski, S.M., and Vining, G.G. (2007). "Construction of Balanced Equivalent Estimation Second-Order Split-Plot Designs," *Technometrics*, 49, pp 56-65.

Parker, P.A., Kowalski, S.M., and Vining, G.G. (2007). "Unbalanced and Minimal Point Equivalent Estimation Second-Order Split-Plot Designs," *Journal of Quality Technology*, 39, pp. 376-388.

Vining, G.G. (2008). "Geoff Vining's Discussion of 'Must a Process Be in Statistical Control before Conducting Designed Experiments,'" *Quality Engineering*, 20, pp. 151-153.

Vining, G.G. and Kowalski, S.M. (2008). "Exact Inference for Response Surface Designs within a Split-Plot Structure," *Journal of Quality Technology*, 40, pp. 394-406.

Wang, L., Kowalski, S.M., and Vining, G.G. (2009). "Orthogonal Blocking of Response Surface Split-Plot Designs," *Journal of Applied Statistics*, 36, pp. 303-321.

Freeman, L.J. and Vining, G.G. (2010). "Reliability Data Analysis for Life Test Experiments with Sub-Sampling," *Journal of Quality Technology*, 42, pp. 233-241.

Wang, L., Vining, G.G., and Kowalski, S.M. (2010). "Two-Strata Rotatability in Split-Plot Central Composite Designs," *Applied Stochastic Models in Business and Industry*, 26, pp. 431-447, (published online 26 June 2009).

Parker, P.A., Vining, G.G., Wilson, S.A., Szarka, J. L., III, and Johnson, N.G. (2010). "Prediction Properties of Classical and Inverse Regression for the Simple Linear Calibration Problem," *Journal of Quality Technology*, 42, pp. 332-347.

Vining, G.G. (2012). "Split-Plot Response Surface Designs," *Design and Analysis of Experiments, Volume 3: Special Designs and Applications*. New York: John Wiley and Sons. Edited by K. Hinkelmann, pp. 471-500.

Anderson-Cook, C.M. Lu, Lu (editors), Panelists: Clark, G., DeHart, S.P., Hoerl, R., Jones, B., MacKay, R.J., Montgomery, D., Parker, P.A., Simpson, J., Snee, R., Steiner, S.H., Van Mullekom, J., Vining, G.G, and Wilson, A.G. (2012) "Statistical Engineering – Forming the Foundations," *Quality Engineering*, 24, pp. 110-132.

Anderson-Cook, C.M. Lu, Lu (editors), Panelists: Clark, G., DeHart, S.P., Hoerl, R., Jones, B., MacKay, R.J., Montgomery, D., Parker, P.A., Simpson, J., Snee, R., Steiner, S.H., Van Mullekom, J., Vining, G.G, and Wilson, A.G. (2012) "Statistical Engineering – Roles for Statisticians and the Path Forward," *Quality Engineering*, 24, pp. 133-152.

Freeman, L.J. and Vining, G.G. (2013). "Reliability Data Analysis for Life Test Designed Experiments with Sub-Sampling," *Quality and Reliability Engineering International*, 29, pp. 509-519.

Freeman, L.J., Ryan, A.G., Kensler, J.J.K., Dickinson, R.M., and Vining, G.G. (2013). "A Tutorial on the Planning of Experiments," *Quality Engineering*, 25, pp. 315-332.

Kensler, J.J.K., Freeman, L.J., and Vining, G.G. (2014). "A Practitioner's Guide to Analyzing Reliability Experiments with Random Blocks and Subsampling," *Quality Engineering*, 26, pp. 359-369.

Dickinson, R.M., Olteanu-Roberts, D.A., Ryan, A.G., Woodall, W.H., and Vining, G.G. (2014) "CUSUM Charts for Monitoring the Characteristic Life of Censored Lifetimes," *Journal of Quality Technology*, 46, pp 340-358.

Vining, G.G., Freeman, L.J., Kensler, J.L.K. (2015) "An Overview of Designing Experiments for Reliability Data," *Frontiers in Intelligent Statistical Quality Control*, 11<sup>th</sup> ed., Knoth, S. and Schmidt, W. eds., pp 321-336.

Kensler, J.J.K., Freeman, L.J., and Vining, G.G. (2015). "Analysis of Reliability Experiments with Random Blocks and Subsampling," *Jouranal of Quality Technology*, 47, pp 235-251.

Vining, G.G., Kulahci, M., Pedersen, S.J. (2015). "Recent Advances and Future Directions for Quality Engineering," *Quality and Reliability Engineering International*, to appear.

Vining, G.G. (2016). "Discussion of 21<sup>st</sup> Century Screening Experiments: What, Why, How?" *Quality Engineering*, to appear.

Quevedo, V., Vegas, S., and Vining, G.G. (2016). "A Tutorial on an Iterative Approach for the Generation of Shewhart Control Limits," *Quality Engineering*, to appear.

### ***Technical Advice Columns***

Vining, G. (2009). "Technical Advice: Phase I and Phase II Control Charts," *Quality Engineering*, 21, pp. 478-479.

Vining, G. (2010). "Technical Advice: Industrial Split-Plot Experiments," *Quality Engineering*, 22, pp. 54-57.

Vining, G. (2010). "Technical Advice: Statistical Process Control and Automatic/Engineering Process Control," *Quality Engineering*, 22, pp. 222-224.

Vining, G. (2010). "Technical Advice: Quantile Plots to Check Assumptions," *Quality Engineering*, 22, pp. 364-367.

Vining, G. (2011). "Technical Advice: Residual Plots to Check Assumptions," *Quality Engineering*, 23, pp. 105-110.

Vining, G. (2011). "Technical Advice: Design of Experiments, Response Surface Methodology, and Sequential Experimentation," *Quality Engineering*, 23, pp. 217-220.

Vining, G. (2011). "Technical Advice: Essential Elements for Quality Improvement Programs," *Quality Engineering*, 23, pp. 395-397.

Vining, G. (2013). "Technical Advice: Scientific Method and Approaches for Collecting Data," *Quality Engineering*, 25, pp. 194-201.

Vining, G. (2013). "Technical Advice: Experimental Protocol and the Basic Principles of Experimental Design," *Quality Engineering*, 25, pp. 307-311.

### ***Invited Articles in Non-statistical Journals***

Johnson, N.E. and Vining, G.G. (1993). "Continuous Quality Improvement: Using the Right Improvement Tools," *The Drive for Perfection: Pharmacy Continuous Quality Improvement Efforts*. Eli Lilly and Co.: Indianapolis, Indiana.

Vining, G.G. (1994). "Control Charts and Their Role in Continuous Quality Improvement," *Pharmaguide to Hospital Medicine*, 6, pp 4-7.

### ***Book Reviews***

Hansen, B.L. and Ghare, P.M. "Quality Control and Application," Prentice-Hall, Inc., Englewood Cliffs, N.J., *Technometrics*, 31, pp 486-487.

Lawrence, K.D. and Arthur, J.L. "Robust Regression: Analysis and Applications," Marcel Dekker, Inc., New York, New York, *Journal of Quality Technology*, 23, pp 175-176.

Ghosh, S. "Statistical Design and Analysis of Industrial Experiments," Marcel Dekker, Inc., New York, New York, *Journal of Quality Technology*, 23, pp 373-374.

Judd, C.M. and McClelland, G.H. "Data Analysis: A Model-Comparison Approach," Harcourt Brace Jovanovich, San Diego, California, *Technometrics*, 34, pp 107-108.

Hogg, R.V. and Ledolter, J. "Applied Statistics for Engineers and Physical Scientists, 2nd ed.," Macmillan, New York, New York, *Journal of the American Statistical Association*, 88, pp 704-705.

## **PLENARY PRESENTATIONS AT INTERNATIONAL MEETINGS**

15<sup>th</sup> Annual Conference for the European Network for Business and Industrial Statistics – Prague, Czech Republic. "The Legacy of George Box and the Future of Industrial Statistics: ENBIS Box Medal Address" by G.G. Vining.



ENBIS Spring Meeting (2015) – Barcelona, Spain. “Predictive Analytics with Big and Complex Data: A Contrarian View” by G.G. Vining.

CICEA (Congreso Internacional de Calidad y Estadística Aplicada, International Conference on Quality and Applied Statistics) (2014), Lima, Peru. “Recent Advances and Future Directions in Quality Engineering” by G.G. Vining. Also The Young Business and Industrial Statistics (y-BIS) Conference (2013) – Istanbul, Turkey and Fifth Quality Conference in the Galilee (2012) – Karmiel, Israel.

CONEII – 2012 (El congreso de estudiantes de ingeniería industrial 2012) – Piura, Peru. “The Importance of Statistics in Industry” by G.G. Vining (presented to 2000 people).

### **INVITED PAPER PRESENTATIONS AT INTERNATIONAL MEETINGS**

18<sup>th</sup> QMOD-Korean Society for Quality Management Conference (2015) – Seoul, Korea. “Statistical Engineering and Tearing Down Disciplinary Area Silos in Quality Engineering,” by G.G. Vining.

XXV Simposio Internacional de Estadística (Colombia National Statistics Meeting) (2015), Armenia, Colombia. “Future Directions for Industrial Statistics” by G.G. Vining.

First Brazilian Conference on Statistical Process Control and Design of Experiments (2015) – Sao Paulo, Brazil. “An Overview of Designing Experiments for Reliability Data” by G.G. Vining, co-authored with L.J. Freeman and J.L.K. Kensler. Also, International Workshop on the Frontiers of Intelligent Quality Control (2013) – Sydney Australia.

AmCham (American Chamber of Commerce, Peru) Quality Day Conference (2014) – Lima, Peru “Beyond Lean Six Sigma” by G.G. Vining.

SINAPE (Brazilian National Statistics Meeting) (2014) – Natal, Brazil “Issues in Planning Experiments for Highly Constrained Regions” by G.G. Vining. Also, 12<sup>th</sup> Annual Conference of the European Network for Business and Industrial Statistics (2012) – Ljubljana, Slovenia. and ASQ-ASA Fall Technical Conference (2014) – Richmond, Virginia.

CONEII – 2012 – Piura, Peru. “The Experience of a Professional Industrial Statistician” by G.G. Vining

CONEII – 2012 – Piura, Peru. “The Importance of Well-Planned Experiments” by G.G. Vining

Workshop on Statistical Methods Applied in Microelectronics (2011) – Milan, Italy. “Joint Modeling of the Mean and the Variance for Microelectronics” by G.G. Vining.

Statistical Society of Canada Annual Meeting (2010) – Quebec City, Quebec. Also, Tenth Annual Conference of the European Network for Business and Industrial Statistics (2010) – Antwerp, Belgium. “Statistical Methods for Reliability Data from Designed Experiments” by G.G. Vining, co-authored by L.A. Freeman.

VI Encuentro Colombia Venezuela de Estadística (2009) – Valencia, Venezuela, “The Future of the Design and Analysis of Industrial Experiments” by G.G. Vining

European Network for Business and Industrial Statistics Annual Meeting (2009) – Gothenberg, Sweden, “Lack-of-Fit Test for Split Plot Response Surface Designs,” by G.G. Vining, co-authored by S.M. Kowalski, P.A. Parker, and J.A. Zielinski

Stellenbosch Statistical Symposium 2009 – International Society for Business and Industrial Statistics Meeting (2009) – Stellenbosch, South Africa, Issues in Designing and Analyzing Experiments for Lifetime Data,” by G.G. Vining, co-authored by L.A. Freeman.

18<sup>th</sup> Simposio de Estadística Sponsored by the Universidad Nacional de Colombia (Annual Joint Statistical Meeting for Colombia and Venezuela) (2008) – Cartagena, Colombia, “A Tutorial on Industrial Split-Plot Experiments” by G.G. Vining.

XXII Foro Nacional de Estadística y XI Seminario de Estadística Aplicada del IASI (2007) – Jurica, Querétaro, México. “The Future of the Design and Analysis of Industrial Experiments” by G.G. Vining.

International Symposium on Business and Industrial Statistics (2007) – Ponta Delgado, Azores. “Weighting Issues for Comparing Split-Plot Experimental Designs” by G.G. Vining.

Joint European Network for Business and Industrial Statistics – Design of Industrial Experiments Conference (2007) – Turin, Italy, “Comments on the Use of Computer Experiments for Robust Design” by G.G. Vining.

16<sup>th</sup> Simposio de Estadística Sponsored by the Universidad Nacional de Colombia (Annual Joint Statistical Meeting for Colombia and Venezuela) (2006) – Bucaramanga, Colombia, “An Overview on the Current Work on Industrial Split-Plot Experiments” by G.G. Vining.

Statistical Society of Canada (2006) – London, Ontario. The Isobel Loutit Invited Address on Business and Industrial Statistics, “The Challenges of Statistical Leadership” by G.G. Vining

Fourth International Symposium on Business and Industrial Statistics (2005) – Palm Cove, Australia. “Testing Issues for Response Surface Designs Run as Split-Plots” by G.G. Vining, co-authored by S.M. Kowalski

International Workshop on the Grammar of Technology Development (2005) – Tokyo, Japan. also Fifth Annual Meeting of the European Network for Business and Industrial Statistics (2005) – Newcastle, UK, “Modifying Response Surface Methodology for Computer and Simulation Experiments” by G.G. Vining

International Conference of Design of Experiments (2004) – Beijing, China. “Exact Inference for Response Surface Designs within a Split-Plot Structure” by G.G. Vining

VIIIth International Workshop on Intelligent Statistical Quality Control (2004) – Warsaw, Poland. also Fourth Annual Meeting of the European Network for Business and Industrial Statistics (2004) – Copenhagen, Denmark, “An Overview of Composite Designs Run as Split-Plots” by G.G. Vining, co-authored by S.M. Kowalski.

Danish Society for Applied Statistics (2004) – Bagsvaerd, Denmark, “An Overview of Experiments with Mixture Components and Process Factors” by G.G. Vining

Second International Conference on Applied and Computational Mathematics (CIMAC II) (2003) – Lima, Peru. “Response Surface Designs within a Split-Plot Structure” by G.G. Vining

Statistics in Industry and Business (2003) – Cochin, India. “The Use of Split-Plot Experiments for Quality Improvement” by G.G. Vining

Statistical Society of Canada (2002) – Hamilton, Ontario. “Lack-of-Fit Tests for Industrial Split-Plot Experiments” by G.G. Vining.

VIIth International Workshop on Intelligent Statistical Quality Control (2001) – Waterloo, Ontario. “An Overview of Current Work on Industrial Split-Plot Experiments” by G.G. Vining.

First Joint Indian Statistical Meetings (2000) – New Delhi, India. “Mixture Experiments with Process Variables under Restricted Randomization” by G.G. Vining, co-authored by S. Kowalski and J.A. Cornell.

Third World Congress of Nonlinear Analysts (2000) – Catania, Italy. “A New Approach to Mixture Experiments with Process Variables” by G.G. Vining, co-authored with S. Kowalski and J.A. Cornell.

VIth International Workshop on Intelligent Statistical Quality Control (1998) - Wurzburg, Germany. “Split-Plot Experimentation for Process and Quality Improvement” by G.G. Vining, co-authored with S. Kowalski.

Statistical Society of Canada (1998) - Sherbrooke, Quebec. “A Review of Response Surface Methodology: 1988 – 1998” by G.G. Vining, co-authored with R.H. Myers and D.C. Montgomery.

Third St. Petersburg Workshop on Simulation (1998) - St. Petersburg, Russia.

International Conference on Combinatorics, Information Theory, and Statistics (1997) - Portland, Maine. “A Compromise Approach to Multiresponse Optimization” by G.G. Vining.

Second World Congress of Nonlinear Analysts (1996) - Athens, Greece. “Experimental Strategies for Estimating Mean and Variance Functions” by G.G. Vining, co-authored with D. Schaub.

Vth International Workshop on Intelligent Statistical Quality Control (1994) - Osaka, Japan. “Prediction Properties of the Process Variance Using the Combined Array” by G.G. Vining, co-authored with E.M. O'Donnell.

I Congress Nacional de Calidad Total - X Congreso Latinoamericano de Control de Calidad (1992) - Guatemala, Central America. “Statistical Designs for Continuous Quality Improvement” by G.G. Vining.

## **PAPER PRESENTATIONS AT NATIONAL MEETINGS**

### *Plenary*

46<sup>th</sup> Annual Fall Technical Conference (2002) – Valley Forge, Pennsylvania. “Advice for Statisticians from a Sampling of Business Executives,” co-presented by R. Snee and G.G. Vining, co-authored with R. Hoerl.

44<sup>th</sup> Annual Fall Technical Conference (2000) – Minneapolis, Minnesota. “A Call to Action” (The Youden Address), by G.G. Vining.

SPES-IMS-Q&P Joint Spring Research Conference (2000) – Seattle, Washington. “An Editor’s View of Future Trends in Industrial Statistics Research: A Personal Perspective” by G.G. Vining.

### *Invited*

ASQ Technical Communities Fall Conference (2014) – Orlando, Florida. “Statistical Engineering and Tearing Down the Silos of Quality Engineering.” By G.G. Vining

Joint Statistical Meeting (2014), Boston, Massachusetts. “Science of Test Research Consortium,” by G.G. Vining, Panel on Recent Statistical Advances in the DoD Acquisition and Test and Evaluation Communities.

World Conference on Quality Improvement (2013) – Indianapolis, Indiana. “Recent Advances and Future Directions in Quality Engineering” by G.G. Vining.

World Conference on Quality Improvement (2012) – Anaheim, California. “Essential Elements for Quality Improvement Programs” by G.G. Vining.

ASA Annual Meeting – Joint Statistical Meeting (2011) – Miami, Florida, “Teaching Statisticians to Solve Large, Complex, Unstructured Problems,” by G.G. Vining

INFORMS Annual Meeting (2010) – Austin, Texas. “CUSUM Charts for Reliability Data,” by G.G. Vining, co-authored by D. Olteanu.

ASA Annual Meeting – Joint Statistical Meetings (2010) – Vancouver, British Columbia, “Statistical Engineering: An Idea Whose Time Has Come? A Discussion in Honor of Gerald Hahn's 80th Birthday,” by G.G. Vining

ASA Annual Meeting – Joint Statistical Meetings (2009) – Washington, D.C., “Essentials for Any Paradigm for Proper Experimentation,” by G.G. Vining

Q&P Research Conference (2009) – Yorktown Heights, New York, “Issues in Designing and Analyzing Experiments for Lifetime Data,” by G.G. Vining, co-authored by L.A. Freeman.

Fall Technical Conference (2008) – Mesa, Arizona. An Overview of Industrial Split-Plot Experiments by G.G. Vining, co-authored by S.M. Kowalski and P.A. Parker.

Q&P Research Conference (2008) – Madison, Wisconsin. George Box’s Contributions to Industrial Experimentation by G.G. Vining.

Design and Analysis of Experiments (2007) – Memphis, Tennessee. Weighting Issues for Comparing Split-Plot Experimental Designs by G.G. Vining.

Q&P Research Conference (2007) – Santa Fe, New Mexico. The Beauty of Classical Designs by G.G. Vining.

Q&P Research Conference (2006) – Knoxville, Tennessee, Role of Optimal Design: A Panel Discussion by G.G. Vining

INFORMS Annual Meeting (2005) – San Francisco, California, “Response Surface Methodology for Split-Plot Experiments: A Sequential Learning Strategy” by G.G. Vining co-authored by S.M. Kowalski.

Q&P Research Conference (2004) – Durham, North Carolina. “Overview of DOE within Six Sigma” by G.G. Vining.

INFORMS Annual Meeting (2003) – Atlanta, Georgia. “Design of Experiments in Engineering Practice and Engineering Curriculum” by G.G. Vining.

ASA Annual Meeting – Joint Statistical Meeting (2003) – San Francisco, California. “Senior Corporate Executives Views of Statisticians” by G.G. Vining co-authored by V. Bowen and W. Parr.

Q&P Research Conference (2002) – Tempe, Arizona. “Lack-of-Fit Tests for Industrial Split-Plot Experiments” by G.G. Vining.

Q&P Research Conference (2001) – Austin, Texas. “An Overview of Current Work on Industrial Split-Plot Experiments” by G.G. Vining.

Annual Quality Congress (2001). “Six Sigma – Breakthrough Strategy or Management Fad” by G.G. Vining.

SPES-IMS-Q&P Joint Spring Research Conference (2000) – Seattle Washington. “Modeling the Process Mean and Variance within a Split-Plot Structure” by G.G. Vining.

INFORMS (1999) – Philadelphia, Pennsylvania. “A Multivariate Nonparametric EWMA Chart Based on Interdirections” by G.G. Vining, co-authored with V. Ajmani.

ASA Annual Meeting - Joint Statistical Meetings (1999) – Baltimore, Maryland. “Split-Plot Experimentation for Process and Quality Improvement” by G.G. Vining, co-authored with S. Kowalski and D.C. Montgomery.

SEMATECH 12th Statistical Methods Symposium (1995) - Austin, Texas. “Experimental Designs for Estimating Both Mean and Variance Functions” by G.G. Vining, co-authored with D.A. Schaub.

American College of Clinical Pharmacy Winter Practice and Research Forum (1993) - Fort Lauderdale, Florida. American College of Clinical Pharmacy Annual Meeting (1993) - Reno, Nevada. “Tools and Techniques for Fact-Based Decision Making” by G.G. Vining.

SRCOS-ASA Summer Research Conference (1992) - Flat Rock, North Carolina. “The Challenges Presented by the Quality Improvement Movement” by G.G. Vining.

Gordon Research Conference on Statistics in Chemistry and Chemical Engineering (1991) - New Hampton, New Hampshire. “Experimental Designs for Simultaneously Estimating Both Mean and Variance Functions” by G.G. Vining.

American College of Clinical Pharmacy Winter Practice and Research Forum (1991) - Fort Lauderdale, Florida. “The Statistical Process Control Technique in Indicator Evaluation” by G.G. Vining.

ASA National Meeting (1990) - Anaheim, California. SRCOS-ASA Summer Research Conference (1990) - Mobile, Alabama. “More Flexible Procedures for Considering both

the Mean and the Variance” by G.G. Vining, co-authored with R.H. Myers and S.L. Myers.

### ***Contributed***

ASA Annual Meeting (1996) - Chicago, Illinois. “Response Surfaces for the Mean and the Process Variance Using a Nonparametric Approach” by G.G. Vining, co-authored with L. Bohn.

ASA Annual Meeting (1992) - Boston, Massachusetts. “The Impact of Model Misspecification upon the Analysis of a Combined Array” by G.G. Vining, co-authored with E. O'Donnell.

ASA Annual Meeting (1991) - Atlanta, Georgia. “A Time Series Approach to Response Surface Experimentation with Repeated Measurements” by G.G. Vining, co-authored with P.J. Ramsey.

ASA Winter Meeting (1990) - Orlando, Florida. “Design and Analysis for Experiments with Attribute Data” by G.G. Vining, co-authored with A.I. Khuri.

ASQC, ASA Fall Technical Conference (1989) - Houston, Texas. “A Graphical Approach for Evaluating Mixture Designs” by G.G. Vining, co-authored with J.A. Cornell, R.H. Myers, and A. Giovannitti-Jensen.

ASA Annual Meeting (1989) - Washington, D.C. “A Graphical Approach for Evaluating Response Surface Designs” by G.G. Vining, co-authored with R.H. Myers.

ASA Annual Meeting (1988) - New Orleans, Louisiana. “Combining Taguchi and Response Surface Philosophies: A Dual Response Approach” by G.G. Vining, co-authored with R.H. Myers.

ASA Winter Meeting (1988) - San Antonio, Texas. “A Mean Squared Error Approach to Multiple Observation Regression Diagnostics” by G.G. Vining, co-authored with R.H. Myers and M.A. O'Gorman.

ASA Annual Meeting (1987) - San Francisco, California. “Determining an Appropriate Sampling Interval for a Shewhart  $\bar{x}$  - Chart” by G.G. Vining, co-authored with M.R. Reynolds, Jr.

### **CONTRACTS/GRANTS**

SABIC Innovative Plastics, 2015. Total amount awarded: \$62,470 (\$40,317 direct and \$22,153 indirect). PI: Geoff Vining. Project Title: Using Historical Data to Facilitate Innovation.

Department of Defense, 2015. Total amount awarded (Virginia Tech portion): \$99,900 (\$63,939 direct and \$35,961 indirect). PI: Geoff Vining. Project Title: 2015 Science of Test.

Department of Defense, 2011-2014. Total amount awarded (Virginia Tech portion): \$385,000 (\$252,197 direct and \$132,803 indirect). PI: Geoff Vining. Project Title: The Science of Test: Advanced Test and Evaluation in Support of the DoD Test and Evaluation Enterprise. Period: 5/1/2011 – 12/31/2014.

National Institute of Aerospace, 2011-2012. Total amount awarded (to date): \$91,847 (\$62,990 direct and \$28,857 indirect). PI: Geoff Vining. Project Title: Statistical Engineering for Measurement System Characterization and Calibration Yr11. Period: 2/4/2011 – 6/30/2012.

Nanosonic Inc., 2010-2012. Total amount awarded: \$20,000 (\$12,611 direct and \$7,389 indirect). PI: Geoff Vining. Project Title: Economical Nanostructured Super Low Friction Shipboard Duct Coatings. Period: 3/16/2010 – 3/15/2012.

National Institute of Aerospace, 2008-10. Total amount awarded: \$253,565 (\$172,079 direct and \$81,486 indirect). PI: Geoff Vining. Project Title: Statistical Engineering for Measurement System Characterization and Calibration. Period: 6/27/2008 – 12/31/2010.

Pratt and Whitney, 2009-10. Total amount awarded: \$124,202 (\$77,871 direct and \$46,331 indirect). PI: Geoff Vining. Project Title: Monte Carlo Simulation of the Engine Development Process. Period: 1/1/2009 – 4/30/2010.

Pratt and Whitney, 2008. Total amount awarded: \$20,000 (\$14,013 direct and \$5,987 indirect). PI: Geoff Vining. Project Title: Support to the Pratt and Whitney Computer Experiments Project. Period: 8/10/2008 – 12/31/2008.

Pratt and Whitney, 2008. Total amount awarded: \$45,000 (\$29,410 direct and \$15,590 indirect). PI: Geoff Vining. Project Title: Support to the ACE program. Period: 3/1/2008 – 12/31/2008.

Pratt and Whitney, 2008. Total amount awarded: \$50,627 (\$34,358 direct and \$16,269 indirect). PI: Geoff Vining. Project Title: Monte Carlo Simulation of the Engine Development Process. Period: 1/1/2008 – 12/31/2008.

Pratt and Whitney, 2007. Total amount awarded: \$26,205 (\$16,682 direct and \$9,523 indirect). PI: Geoff Vining. Project Title: Investigation of Maximum Likelihood versus Rank Regression for Modeling of Life Time Data. Period: 11/1/2007 – 8/15/2008.

Becton – Dickinson, 2007. Total amount awarded: \$46,769 (\$32,582 direct and \$14,187 indirect). PI: Geoff Vining. Project Title: BD Assistantship. Period: 10/1/2007 – 9/30/2008.



National Institute of Aerospace, 2007. Total Amount Awarded: \$93,704 (\$63,854 direct and \$29,850 indirect). PI: Geoff Vining. Project Title: Rapid Prototyping Studies. Period: 8/15/2007 – 8/15/2008.

Pratt and Whitney, 2007. Total Amount Awarded: \$22,720 (\$14,516 direct and \$8204 indirect). PI: Geoff Vining. Project Title: Various smaller projects. Period: 1/1 – 12/31/2007

Becton – Dickinson, 2006. Total amount awarded: \$46,605 (\$32,793 direct and \$13,812 indirect). PI: Geoff Vining. Project Title: BD Assistantship. Period: 10/15/2006 – 8/15/2007.

DuPont, 2005. Total amount awarded: \$32,000 (\$25,478 direct and \$6522 indirect). PI: Geoff Vining. Project Title: Statistical Internship. Period: 1/1 – 12/31/2005.

American Society for Quality, 1997-2000. Total amount awarded: \$255,760.00. Project Title: *Journal of Quality Technology* Editorial Office.

National Science Foundation/SUCCEED, 1993-1995. Total amount awarded to department: \$21,500.00. Project Title: Computer-Aided Process Improvement Laboratory.

Department of Health and Rehabilitative Services (Florida), 1993-1995. Total amount awarded: \$9,300.00. Project Title: Continuous Improvement at North Florida Evaluation and Treatment Center.

Shell Development Company, 1991 and 1992. Total amount awarded: \$10,000.00. Project Title: Statistical Design of Experiments.

ALCOA Foundation, 1991. Total amount awarded: \$7,500.00. Project Title: Systematic Improvement of Dynamic Process by Response Surface Methodology Methods for Time Series.

ALCOA Foundation, 1990. Total amount awarded: \$7,500.00. College of Liberal Arts and Sciences, University of Florida, 1990. Total amount awarded: \$5,000.00. Project Title: Experimental Designs for Dynamic Processes Improvement.

Research Development Award Division of Sponsored Research, University of Florida, 1990. Total amount awarded: \$14,682.00. Project Title: The Development of Response Surface Techniques for Generalized Linear Models.

Research Development Award Division of Sponsored Research, University of Florida, 1989. Total amount awarded: \$13,940.00. Project Title: Experimental Designs and Analysis for Both the Mean and the Variance.

Research Development Award (equipment grant) Division of Sponsored Research, University of Florida, 1988. Total amount awarded: \$4,500.00. Project Title: A Graphical Approach for Evaluating Experimental Designs.

## **PROFESSIONAL WORKSHOPS**

10<sup>th</sup> Annual Conference of the European Network for Business and Industrial Statistics (2010) – Antwerp, Belgium, A Shortcourse on Generalized Linear Models by G.G. Vining.

53rd ASQ – ASA Annual Fall Technical Conference (2009) – Indianapolis, Indiana, A Short Course on Industrial Split-Plot Experiments by G.G. Vining.

XXII Foro Nacional de Estadística y XI Seminario de Estadística Aplicada del IASI (2007) – Jurica, Querétaro, México, Generalized Linear Models, presented by G.G. Vining.

16<sup>th</sup> Simposio de Estadística Sponsored by the Universidad Nacional de Colombia (2006) – Bucaramanga, Colombia, An Overview of Response Surface Methodology, presented by G.G. Vining.

ASA Annual Meeting (2003) – San Francisco, California. Industrial Split-Plot Experiments, presented by G.G. Vining and S. Kowalski.

ASQ-ASA Fall Technical Conference (1998) - Corning, New York. Robust Parameter Design and Statistically Based Alternatives, presented by G.G. Vining.

ASA Annual Meeting (1998) - Dallas, Texas. Generalized Linear Models, presented by D.C. Montgomery and G.G. Vining.

American Physical Society Meeting (1997) - Kansas City, Missouri. “Tutorial on Statistical Design and Analysis of Experiments” presented by G.G. Vining

American Society of Agronomy Annual Meeting (1994) - Seattle, Washington. “Team Building” presented by E.A. Hanlon and G.G. Vining.

American Society of Agronomy Annual Meeting (1993) - Cincinnati, Ohio. “Total Quality Management for Laboratory Operation and Research Excellence” presented by E.A. Hanlon and G.G. Vining.

ASA Annual Meeting (1993) - San Francisco, California. “Quality Improvement Through Response Surface Design and Analysis” presented by R.H. Myers and G.G. Vining.

Second International Symposium on Soil Testing and Plant Analysis (1991) - Orlando, Florida. “Workshop on Statistical Process Control” presented by G.G. Vining.

## CONSULTATIONS OUTSIDE THE UNIVERSITY

<i>Date</i>	<i>Organization</i>	<i>Work Performed</i>
5/09 – Present	NASA – NESC (through ATK)	Consulting on the Experimental Designs and Analyses for the Lifetimes of Carbon Composite Overwrap Vessels
3/09 – 12/09	Pratt and Whitney	Teaching short courses on experimental design, regression analysis, and statistical process control
8/93 – 4/03	Statistical Productivity Consultants	statistical consulting and teaching short courses on experimental design, engineering statistics, and regression.
4/01 – 4/02	Milberg, Weiss, Bershad, Hynes & Lerach, LLP	expert witness, Bridgestone/Firestone, Inc. ATX, ATX II, and Wilderness Tires Product Liability Litigation, MDL No. 1373 (for plaintiffs)
6/99 – 4/01	Byrne, Moore & Davis, P.C.	expert witness, Kathryn D. Spell, et al. v. Cagle’s Inc. et al. (for the defendant)
2/99 – 6/99	Powell, Goldstein, Frazer & Murphy LLP	expert witness, Carpet Antitrust Litigation (for the defendant)
12/95 – 8/98	Minor, Bell, & Neal, P.C.	expert witness, Estate of Bud Hill, et al. v. ConAgra Poultry Company, et al. (for defendant).
2/92 – 12/94	Nalco Chemical Company	taught short courses on experimental design and analysis.
4/89 – 10/94	Gates Aerospace Batteries	designed and analyzed experiments for the Space Station Project.
8/91 – 4/94	Thirteen Different Societies of Hospital Pharmacists	taught workshops on quality improvement.
2/94 – 3/94	AER Energy Resources, Inc.	planned experiments related to quality improvement.
4/93 – 5/93	Ocala Section of the American Society for Quality Control	taught short course on experimental design and analysis.

3/93 – 5/93	NCM Publishers	helped develop and participated in a videotape on continuous quality improvement for pharmacy.
11/92 – 5/93	Charity Hospital New Orleans, Louisiana,	consulting with hospital staff on continuous quality improvement.
7/90 – 9/90	U.S. Agri-Chemicals Corp.	developed a control scheme for a phosphoric acid process.

## **PROFESSIONAL SERVICE**

Member of the Board of Directors Representing the Divisions, American Society for Quality (2012-15).

Chair, Technical Communities Council, American Society for Quality (2013-2014)

Vice-Chair, Division Affairs Council, American Society for Quality (2012)

Chair, Statistics Division of the American Society for Quality (2005-06)  
(Chair-Elect in 2004-05).

Chair, Quality and Productivity Section of the American Statistical Association (2000)  
(Chair-Elect in 1999, Past Chair in 2001).

Vice-President for Membership, International Society for Business and Industrial Statistics (2007-2009).

Chair, Publications Management Board, American Society for Quality (2003 – 07). Co-Chair (2007-2010)

Chair, Brumbaugh Award Committee, American Society for Quality (2000-2004).

Chair, Journal Editors Committee, American Society for Quality (2001-2004)

Vice-Chair, Publications Management Board, American Society for Quality (2000-2002).

Group Facilitator, Division Affairs Council, American Society for Quality (2010 – Present).

Deputy Group Facilitator, Division Affairs Council, American Society for Quality (2009-2010).

Member, Editorial Review Board, *Journal of Quality Technology* (1992-2008).

Member, Advisory Board, Quality Engineering (2006 – Present)

Member, ASQ Publications Management Board (1997 – Present)

Member, Awards Board, American Society for Quality (2004-07)

Member, Brumbaugh Award Committee, American Society for Quality (1993-2004).

Member, Shewhart Medal Committee, American Society for Quality (1999 – 2003, 2011-2015)

American Statistical Association Representative to the American Society for Quality's Deming Medal Committee (2004 – 2006)

Member, William G. Hunter Award Committee, American Society for Quality Statistics Division (2012-2014)

Council of Sections Representative, Quality and Productivity Section of the American Statistical Association (1997-1999).

Co-Founder, Stu Hunter Research Conference (2013-Present)

General Conference Chair, 2011 Quality and Productivity Research Conference, Roanoke, Virginia

General Conference Chair, 2006 Fifth International Symposium on Business and Industrial Statistics, Lima, Peru.

Conference Co-Chair, 1997 Quality and Productivity Conference, Orlando, Florida

Facilitator, Hospital Quality Council, Shands Hospital at the University of Florida (1991-1994).

Program Chair, 1991 Meeting of the Florida Chapter of the ASA, Gainesville, Florida.

Session Organizer and Chair, "ASQ-Statistics Division Session on Six Sigma," (2007) International Symposium on Business and Industrial Statistics, Ponta Delgada, Azores.

Session Organizer, "Innovations in Design of Experiments," (2006) INFORMS International, Hong Kong.

Session Organizer, "Topics in Design of Experiments," (2001) Quality and Productivity Research Conference, Austin, Texas.

Session Organizer and Chair, "Recent Work in Statistical Process Control," (1999) INFORMS, Philadelphia, Pennsylvania.

Session Organizer and Chair, “Topics in Multiple Response Experimentation,” 1999 ASA Annual Meeting, Baltimore, Maryland.

Session Organizer, 1997 SRCOS Meeting, Gatlinburg, Tennessee

Session Organizer and Chair, “Recent Advances in Design of Experiments,” 12th (1995) Quality and Productivity Research Conference, Scottsdale, Arizona.

Panel Discussant, “Emerging Issues & Directions in Quality, Statistics, and Reliability – Editors’ Point of View”, (1999) INFORMS, Philadelphia, Pennsylvania.

Discussant, “Quality Improvement Methods for Correlated Data,” 1994 ASA Winter Meeting, Atlanta, Georgia.

Moderator, “Design of Experiments,” 1991 ASQC-ASA Fall Technical Conference, Lexington, Kentucky.

Session Chair, “Robust Design for Quality Improvement,” 1992 ASA National Meetings, Boston, Massachusetts

Session Chair, “Sample Size Issues for Control Charts,” 1990 ASA Winter Meeting, Orlando, Florida.

Papers Refereed for: *Technometrics*

*Journal of Quality Technology*

*Biometrics*

*American Statistician*

*International Statistical Review*

*Communications in Statistics*

*Operations Research*

*Annals of Statistics*

#### **UNIVERSITY COMMITTEES (University of Florida)**

Member, University Senate 1992-1994.

Member, Ad Hoc Committee to Draft University's Proposal for the IBM Total Quality Management (TQM) Competition for Colleges and Universities.

#### **UNIVERSITY COMMITTEES (Virginia Tech)**

Member. Dean of the College of Science Search Committee (2003)

#### **COLLEGE COMMITTEES (University of Florida)**

College of Liberal Arts and Sciences Teaching Awards Committee (1990-1991).

### **COLLEGE COMMITTEES (Virginia Tech)**

Member, College Personnel Committee (2006-2009, 2012-2015). Chair, 2014-2015.

Member, College of Science Troika (Executive Committee) (2002-2003)

Member, College Ad Hoc Budget Allocation Committee (2000-2001).

Member, College Ad Hoc Strategic Planning Committee (2001)

Member College of Science Outreach Committee (2006)

### **DEPARTMENTAL COMMITTEES (University of Florida)**

Graduate Coordinator (1996-97).

Coordinator, Week of Short Courses (1990-1995).

Chair, Lecturer Search Committee (1990-1991).

Chair, Applied Comprehensive Exam Committee (1993-1999).

Member, Comprehensive Exam Committee (1989-1993).

Member, Ad Hoc Committee to Revise the Masters Applied Statistics Sequence (1989-1990).

Member, Ad Hoc Committee to Develop a Ph.D. Level Course in Linear Models (1990-1991).

### **DEPARTMENTAL COMMITTEES (Virginia Tech)**

Chair, 2012 Hiring Committee (2011-12)

Member, Qualifying Examination Committee, Department of Statistics, Virginia Tech (2000, 2007-2008).

Member, Corporate Partners Committee (2006-Present)

### **COURSES TAUGHT**

#### ***Graduate Level***

Applied Statistical Methods

Design and Analysis of Experiments I  
Statistical Methods for Industrial Practice  
Statistical Methods in Social Research I  
Analysis of Multivariate Data  
Regression Analysis  
Reliability  
Response Surface Design and Analysis I  
Response Surface Design and Analysis II  
Theory of Linear Models  
Structured Process Improvement (Six Sigma)

***Undergraduate Level***

Introduction to Statistics I  
Introduction to Statistics I, Honors Section  
Statistics for Business Decisions  
Engineering Statistics  
Regression Analysis  
Design of Experiments  
Mathematical Statistics I  
Mathematical Statistics II  
Industrial Statistics  
Time Series Analysis

**DOCTORAL STUDENTS**

E.M. O'Donnell (1994). Dissertation Title: A Mean Squared Error of Prediction Approach to the Analysis of the Combined Array.

V.B. Ajmani (1998) Dissertation Title: Robust Multivariate Control Charts.

S. Kowalski (1999) Dissertation Title: The Design and Analysis of Split-Plot Experiments in Industry.

P. McGoff (2000) Dissertation Title: A Unified Approach to Process Optimization.

P. Parker (2005) Dissertation Title: Response Surface Designs and Analyses in the Presence of Restricted Randomization (Co-chaired with Scott Kowalski).

L. Wang (2006) Dissertation Title: Recommendations for Design Parameters for Central Composite Designs with Restricted Randomization (Co-chaired with Scott Kowalski).

D. Olteanu (2010) Dissertation Title: Cumulative Sum Control Charts for Censored Reliability Data (Co-chaired with Bill Woodall).

L. Freeman (2010) Dissertation Title: Statistical Methods for Reliability Data from Designed Experiments.



J. Zielinski (2010) Dissertation Title: Adapting Response Surface Methods for the Optimization of Black-Box Systems.

J. Kensler (2012) Dissertation Title: Analysis of Reliability Experiments with Random Blocks and Subsampling.

R. Dickinson (2014) Dissertation Title: Statistical Methods for Improving and Maintaining Product Reliability.

### **MASTERS THESIS STUDENT**

D.A. Nations (1997.) Thesis Title: When the Experiment Goes Awry.

### **Ph.D OPPONENT**

Malin Albin, 2008, "Contributions to Process Capability Indices and Plots," Lulea Technical University, Sweden

Erik Vanhatalo, 2009, "On Design of Experiments in Continuous Processes," Lulea Technical University, Sweden