Curriculum Vitae Don Edwards

May 14, 2018

CONTACT INFORMATION

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Internet: http:/www.stat.sc.edu/~edwards

EDUCATION / CERTIFICATION

ASA Accredited Professional Statistician (PStat®) 2011-;

Ph.D. Statistics, Ohio State University 1981

M.S. Statistics, Ohio State University 1979

B.S. Mathematics, Ohio State University 1977

RESEARCH INTERESTS

Statistical methods for healthcare auditing; modeling interrater agreement in medical diagnostic tests; statistics education; response surface methodology; simultaneous inference.

EXPERIENCE: in Program/Dept. of Statistics, University of South Carolina, except as noted.

2017-: Distinguished Professor Emeritus

2012-: Consultant for the Department of Justice

2000-: Consultant for Palmetto GBA, Inc. (CMS contractor)

2002-05, 2013-17 Graduate Director for Distance Education Programs

2012: Visiting Professor, Dept. of Epidemiology and Biostatistics, UC-San Francisco

2005-12: Department Chair

2003-09: Consultant for TriCenturion, Inc. (Medicare benefit integrity investigations)

2004-07: JABES Management Board

2005-06: Associate Editor, Journal of the American Statistical Association

1996-02: Director of Graduate Studies

1995-99: Associate Editor, Communications in Statistics: Theory and Methods

1994-96: Director of Undergraduate Studies

1994-98: Consulting Statistician, J.W. Jones Ecological Research Center, Ichauway, Georgia

1996: Software Designer for the *multicomp()* suite in *Splus ®*, MathSoft, Inc.

1993-96: Associate Editor, Journal of Statistical Computation and Simulation

1989: Visiting Scientist, Operations Research and Industrial Engineering, Cornell University

1983-87: Director, Statistical Consulting Laboratory

1981-95: Assistant Professor to Professor

HONORS

- 2015 Paul Minton Service Award, Southern Regional Council on Statistics
- 2014 Breakthrough Leadership in Research Award, University of South Carolina
- 1999 Distinguished Achievement Medal, ASA Section on Statistics and the Environment
- 1997 Fellow of the American Statistical Association
- 1990 Outstanding Member of the South Carolina Chapter of the American Statistical Association for 1985-1989

FUNDED RESEARCH ACTIVITY (SELECTED)

- 2/15/2018-1/31/2022 NIH/NCI \$1.05M 1 R01 CA 226805-01 "Improving Accuracy in Cancer Screening Tests" (co-I; Kerrie Nelson, P.I.)
- 2014-17: NIH/NCI, \$970K 1-R01 CA 172463-01A1, "Modeling Agreement in Cancer Diagnostic Tests" (co-I; Kerrie Nelson, P.I.).
- 2013-14: NSF, \$10,000. DMS- 1305948, "Summer Research Conference in Statistics and Biostatistics" (P.I.)
- 2012-13: NSF, \$10,000. DMS-1157813, "Summer Research Conference in Statistics" (P.I.)
- 2007: NSF, \$13,000. DMS-0726219, "Current and Future Trends in Nonparametrics" (co-P.I.; P.I. Edsel Peña).
- 2006-08: NCI, \$100,000. R03 CA114783-01A. "Modeling inter-rater agreement through the use of generalized linear mixed models" (co-I.; Kerrie Nelson, P.I.)
- 2005-07: CICEET (NOAA), \$76,582. "The Effect of Climatological Cycles and Storm Events on Water Quality in the National Estuarine Research Reserve Systems of the Southeastern U.S." (co-P.I.; Susan Wilde, P.I.)
- 1993-98; 2001-06: NOAA, \$5,000,000; \$4,700,000. "Urbanization and Southeastern Estuaries", One of ~15 Senior Investigators.
- 1999-02: NOAA, \$289,268, "A Synthesis of Water Quality Data from the National Estuarine Research Reserve's System-Wide Monitoring Program," (co-P.I.; Elizabeth Wenner, P.I.)
- 1996-01 NSF, \$753,149, "The Role of Oyster Reefs in the Structure and Function of Tidal Creeks". One of 8 Senior Investigators (Richard Dame, P.I.).
- 2001: USC Research Office, \$30,000, "Environmetrics" (equal-partner co-P.I. with W.Piegorsch).
- 1992-94 NSF, \$94,980, "Elementary Statistics Laboratory Course Development," co-P.I. (J.D. Spurrier, P.I.).
- 1983-94 NSF, \$9,600,000, "Long Term Ecological Research at North Inlet". One of ~12 Investigators (F.J.Vernberg, P.I.)
- 1986-87 NIH R01, \$30,531, "Sharp multiple comparisons for multivariate analysis" (P.I.)
- 1985-86 NIH R01, \$15,709, "Exact simulation-based multiple comparisons" (P.I.)

PUBLICATIONS

BOOKS

- Petkewich, Maureen and **Edwards, Don** (2013). *Statistics: Play-by-Play*. Dubuque, IA: Kendall-Hunt.
- Spurrier, John D., **Don Edwards**, and Lori A, Thombs (1999). *Statistics: Learning by Doing*. Long Beach, NY: Whittier.
- Spurrier, John D., **Don Edwards**, and Lori A.Thombs (1995). *Elementary Statistics Laboratory Manual*. (separate versions for MS-DOS and Macintosh; also, Instructor's Manual). Belmont, CA: Duxbury Press.

PEER-REVIEWED JOURNAL ARTICLES (SELECTED FROM 76)

A. STATISTICAL THEORY, METHODS, AND EDUCATION

- Nelson, K.P., Mitani, A.A. and **Edwards, D**. "Evaluating the effects of rater and subject effects on association". Submitted.
- Nelson, K.P., Mitani, A.A. and **Edwards, D**. "Assessing the influence of rater and subject characteristics on agreement for ordinal raters". In press, *Statistics in Medicine*.
- Lin, X., Chen, H., **Edwards, D.**, and Nelson, K.P. (2018) "Modeling rater diagnostic skills in binary classification processes". *Statistics in Medicine* **37**: 557-571. https://doi.org/10.1002/sim.7530.
- Nelson, K.P. and **Edwards, D.** (2016). "A measure of association for ordered categorical data In population-based studies". *Statistical Methods for Medical Research.* 2016 May 16. PMID: 27184590
- **Edwards, Don**, Dennis Gilliland, Gail Ward-Besser, and Jennifer Lasecki (2015). "Conservative Pennysampling". *Journal of Survey Statistics and Methodology* **3**: 504-523.
- Nelson, K.P. and **Edwards, D.** (2015). "Measures of Agreement Between Many Raters for Ordinal Classifications". *Statistics in Medicine* **34**: 3116-3132.
- Ignatova, Iliana; Deutsch, Roland; and **Edwards, Don** (2012). "Closed sequential and multistage inference on binary responses with or without replacement". *The American Statistician* **66**: 163-172.
- Gilliland, Dennis and **Edwards, Don.** (2011) "Using Randomized Confidence Limits to Balance Risk- an Application to Medicare Investigations". *The American Statistician* **65**, 149-153.
- **Edwards, Don** (2011) "On Stratified Sampling and Ratio Estimation in Medicare Benefit Integrity Investigations" *Health Serv Outcomes Res Method*, **11**: 79-94. DOI 10.1007/s10742-011-0073-7
- Autin, Melanie and **Edwards, Don** (2010). "Nonparametric Harmonic Regression for Estuarine Water Quality Data". *Environmetrics* **21**, 588-605.
- Nelson, Kerrie and **Edwards**, **Don** (2010). "Improving the reliablity of diagnostic tests in population-based agreement studies. *Statistics in Medicine*. 29(6), 617-626

- Ignatova, Iliana and **Edwards, Don** (2008). "Probe Samples and the Minimum Sum Method for Medicare Fraud Investigations". *Health Services and Outcomes Research Methodology* **8**: 209-221.
- Nelson, Kerrie, and **Edwards, Don** (2008). "On population-based measures of agreement". *The Canadian Journal of Statistics*, **36:** 411–426.
- Parody, Robert and **Edwards, D on** (2007) "Confident Exploratory Visualization Techniques for Improvement in High Dimensional Response Surfaces". *International Journal of Statistics and Management Systems,* **1**:112-129.
- Parody, Robert and **Edwards, Don** (2007). "Simulation-Based Inference on the Improvement in a Rotatable Response Surface". *QTQM*, **4**: 489-499.
- **Edwards, Don**, G.Ward-Besser, J.Lasecki, B.Parker, K.Wieduwilt, F.Wu, and P.Moorhead (2005). "The Minimum Sum Method: a Distribution-Free Sampling Procedure for Medicare Fraud Investigations". *Health Services and Outcomes Research Methodology* **4:** 241-263.
- **Edwards, Don** (2005). "On 'False Discovery Rate-Adjusted Multiple Confidence Intervals for Selected Parameters'". Invited comment, *Journal of the American Statistical Association* **100**, 81.
- Piegorsch, W.W. and **Edwards, Don** (2002). "What shall we teach in environmental statistics?", with 9 comments and rejoinder. *Environmental and Ecological Statistics* 9, 125-150.
- Merchant, Aparna, M.McCann and **D. Edwards** (1998). "Improved multiple comparisons with a control in response surface analysis". *Technometrics* **40**, 297-303.
- Piegorsch, Walter W., E.P.Smith, **D.Edwards**, and R.L.Smith (1998). "Statistical advances in environmental science." *Statistical Science* **13**, 186-208.
- McCann, Melinda and **Edwards, Don** (1996), "A path-length inequality for the multivariate-t distribution, with applications to multiple comparisons". *Journal of the American Statistical Association* **91**, 211-216.
- Sa, Ping and **Edwards, Don** (1993), "Multiple comparisons with a control in response surface methodology." *Technometrics* **35**, 436-445.
- **Edwards, Don** and Berry, Jack J. (1987), "The efficiency of simulation-based multiple comparisons". *Biometrics* **43**, 913-928.
- **Edwards, Don** (1987), "Extended-Paulson sequential selection". *Annals of Statistics* **15**, 449-455.
- Spurrier, John D. and **Edwards, Don** (1986), "An asymptotically optimal subclass of the balanced treatment incomplete block designs for comparisons with a control." *Biometrika* **73**, 191-199.
- **Edwards, Donald G.** and Hsu, J.C. (1983), "Multiple comparisons with the best treatment." *Journal of the American Statistical Association* **78**, 965-971.
- Hsu, J.C. and Edwards, **Donald G**. (1983), "Sequential multiple comparisons with the best." *Journal of the American Statistical Association* **78**, 958-964.

B. COLLABORATIVE INTERDISCIPLINARY RESEARCH

Kelsey, Heath, Geoffrey I. Scott, Dwayne E. Porter, Tom Siewicki, and **Donald G. Edwards** (2010). Improvements to shellfish harvest area closure decision-making using GIS, remote sensing, and predictive models. *Estuaries and Coasts* **33**, 712-722.

- **Edwards, Don**, Hurley, Dorset, and Wenner, Elizabeth L. (2005). Nonparametric Harmonic Analysis of Estuarine Water Quality Data: a National Estuarine Research Reserve Case Study. *Journal of Coastal Research* Special Issue #45, 75-92.
- Dame, R., D. Bushek, D. Allen, E. Koepfler, A. Lewitus **and D. Edwards**. (2002). "Ecosystem response to bivalve density reduction: management implications." *Aquatic Ecology*, **36**:51-65.
- **Edwards, D**. (2000). Data Quality Assurance. Pages 70-91 in W. K. Michener and J. Brunt., editors. Ecological Data: Design, Processing and Management. Blackwell Science Ltd., London, UK.
- Dame, R., D.Bushek, D.Allen, **D.Edwards**, L.Gregory, A.Lewitus, S.Crawford, E.Koepfler, C.Corbett, B.Kjerfve, and T.Prins. (2000). "The experimental analysis of tidal creeks dominated by oyster reefs: the pre-manipulation year", *Journal of Shellfish Research* 19: 361-369.
- Palik, B.J., W.K.Michener, R.J.Mitchell, **and D.Edwards** (1999). "Flooding and longleaf pine mortality: effects of ecosystem disturbance on population structure." *Ecoscience* **6**, 255-263.
- Kirkman, K., M.Drew and **D.Edwards** (1998). "Effects of experimental fire regimes on the population dynamics of *Schwalbea americana* L." *Plant Ecology* **137**: 115-137.
- **Edwards, Don** (1998). "Comment: issues and themes for natural resource trend and change detection." *Ecological Applications* **8**, 323-325.
- Porter, D.E., **D.Edwards**, G.Scott, B.Jones, and W.S.Street, IV (1997). "Assessing the impacts of anthropogenic and physiographic influences on grass shrimp in localized salt marsh estuaries: a multidisciplinary approach". *Aquatic Botany* **58**, 289-306.
- Little, Laurie S., **D.Edwards**, and D.E. Porter (1997). "Kriging in estuaries: as the bird flies, or as the fish swims?". *J. Exp.Mar.Biol.Ecol.* **213**, 1-11.
- Allen, Dennis M., **D.Edwards**, R.J. Feller, S.E.Hutchinson, and V.Ogburn-Matthews (1997). "Detection and analysis of unusual events in long-term zooplankton and nekton data sets from North Inlet Estuary, South Carolina, USA". *Oceanologica Acta* **20**, 165-175.
- **Edwards, Don**. (1996). "Comment: The first data analysis should be journalistic." *Ecological Applications* **6**, 1090-1094.
- Scholz, Paul M., **D.Edwards**, R.C.Palm, Jr. and J.M. Dean (1994), "Use of a quadratic response model to estimate optimum combinations of nutritional variables." *Transactions of the American Fisheries Society* **123**, 266-272.
- Gardner, L.R., L.Thombs, **D.Edwards**, and D.Nelson (1989), "Time series analyses of suspended sediment concentrations at North Inlet, SC". *Estuaries* **12**, 211-221.
- **Edwards, Don** and Coull, B.C. (1987). "Autoregressive trend analysis: an example using long-term ecological data". *Oikos* **50**, 95-102.
- Sugimoto, Tai and **Edwards, Don** (1987). "Incidence and costs of incidental appendectomy as a preventive measure". *American Journal of Public Health* **77**, 471-475.
- Schoonover, G.A., G.N.Olsen, W.C.McLan, M.R.Habibian, **D.G.Edwards**, and P.G.Spurrier (1984), "Comparison of lateral position test to quantitative lung scan in the preoperative evaluation for lung resection". *Chest* **86**, 854-859.

PRESENTATIONS

A. INVITED (SELECTED FROM 23)

- Summer Research Conference, Carolina Beach NC June 2015. "Reflections on 6 years at the SRCoS". Banquet address.
- Joint Statistical Meetings, Boston MA August 2014. "Distance Education: Strategies that Work".
- 2nd Workshop on Biostatistics and Bioinformatics, Atlanta GA May 2013. "Exact Analysis of closed sequential experiments with binary response".
- Fifteenth Annual Medicare / Medicaid Statistics and Data Analysis Conference, Baltimore, MD August 2011. "Conservative Pennysampling".
- Annual Meeting of the Georgia-South Carolina Health Physics Society, Aiken SC March 2011. "The *Joy* of Design-Based Statistics".
- Thirteenth Annual Medicare / Medicaid Statistics and Data Analysis Conference, Omaha, NE October 2009. Invited panelist on testifying in Medicare ALJ hearings
- Georgia Chapter of ASA April 2009. "Exact Sequential Acceptance Sampling for Attributes".
- National Advocacy Center (US DoJ), Columbia SC, January 2009: "The Evolution of Statistical Sampling for Medicare Benefit Integrity Investigations"
- Ninth Annual Medicare Statistics and Data Analysis Conference, Indianapolis, IN, November 2005: "The Minimum Sum Method for Audited Payment Populations". Keynote address.
- Joint Statistical Meetings, August 2000. Invited Discussant for Session on Distance Education.
- ASA/EPA/ESA/SBI Workshop on Ecological Resource Modeling: Change and Trend Detection, Laurel, Maryland May 1996. Lead Discussant, aquatic (all talks).
- Joint European/American Workshop on Long Term Study Influences on Science and Policy, Galway, Ireland, May 1994. "On Seasonal and Interannual Zooplankton and Benthos Dynamics". with R.J. Feller, S.E. Stancyk, and B.C. Coull.

B. CONTRIBUTED PAPERS AND SEMINARS (SELECTED FROM 92)

- International Biometric Society, Florence IT. "Pearsonian Estimation and Inference for a Model-based Measure of Agreement" (July 2014)
- Medical University of South Carolina Department of Biostaistics. "Exact Analysis for Certain Closed Sequential Experiments with Binary Responses (November 2013)
- Neyman Lecture, Dept. of Statistics, UC Berkeley "Statistics and Healthcare Fraud" (Oct 2012). Also presented at Oklahoma State University Department of Statistics (March 2013), UC-Davis Dept. of Statistics (Oct 2012), University of North Florida, Dept. of Mathematics and Statistics (March 2012), Cleveland State University, Department of Mathematics and Statistics (October 2011).
- Western Kentucky University Department of Mathematics and Statistics, Feburary 2011. "Exact Sequential Acceptance Sampling for Attributes". Also presented at the University of North Florida, Dept. of Mathematics and Statistics (March 2012); Austin Peay State University, Department of Mathematics (February 2011); Clemson University Dept. of

- Mathematical Sciences (March 2009); UNC Wilmington (Nov. 2008) and UNC Greensboro (Oct. 2008).
- UC-San Francisco Division of Biostatistics, September 2012: "Closed sequential and multistage inference with binary response". Also presented at Michigan State University Department of Statistics and Probability, November 2010.
- 13th Annual Medicare / Medicaid Statistics and Data Analysis Conference, Omaha, NE October 2009. "On Stratification in Medicare Investigations"
- South Carolina Governor's School for Science and Mathematics, Jan 2001 "Environmetrics".
- Ohio State University Statistics Department Silver Anniversary conference, October 1999. "Multiple Comparisons with the Best in Response Surface Methodology".
- University of Florida, Department of Statistics, April 1996. "Moldy soccer balls, circus balloon animals, and multiple comparisons".

SUMMARY OF HEALTHCARE INVESTIGATION CONSULTING:

As statistical consultant for CMS contractor Palmetto GBA, Inc. from 2000 to present I have advised their staff on the investigation of healthcare providers who may be abusing the system. During the power-wheelchair crisis of the early part of this century, with input from Palmetto colleagues I developed a new extrapolation method, the *minimum sum method*, which (unlike most widely-used classical extrapolation methods) is valid for any universe size and any sample size. I was called upon to testify and/or render written opinions in ALJ hearings in defense of sampling plans on thirteen occasions. I currently advise Palmetto in their role as a part A QIC; in the latter capacity I have written opinions on hundreads of cases in the past four years, including 60 this year alone.

As statistical consultant for PSC TriCenturion Inc 2003-08, I advised their staff on design and extrapolation of Medicare provider audits. For this purpose I developed *samptest()*, a widely-used Monte Carlo simulation program in *R* for testing sampling-and-extrapolation plans. I advised TriCenturion directly on more than 50 investigations and indirectly on most investigations they performed during this period. I was called upon to testify in defense of their sampling plans in ALJ hearings on six occasions.

Since 2012 I have been under contract as a statistical advisor to the USDoJ in a number of investigations of national healthcare provider networks. I was deposed in summer 2017 for two of these cases.

I have testified on five occasions since 2012 as a "friend of the court", rendering independent opinions on sampling plans conducted by CMS contractors and contested by providers.

PROFESSIONAL MEMBERSHIPS, COMMITTEES, AND OFFICES HELD

Southern Regional Council on Statistics (SRCoS): President-Elect 2009-11;

President 2012-13; Past-President 2014-15.

International Biometric Society (ENAR) 2008-.

American Statistical Association 1979-;

ASA Caucus of Institutional Representatives: Treasurer, 2008-12

Member, ASA delegation to China, December 2010

ASA Section on Statistics and the Environment

Environmental Monitoring and Natural Resources Assessment Committee 1995-96 Representative to the ASA Council of Sections 2003-05

SC Chapter of the American Statistical Association

Sec.-Treas., 1983; V.P., 1983-84; Pres.-Elect, 1984-85; Council Rep., 1984-86; President, 1985-86. SC Region II Science Fair Judge and/or Presenter (yearly) 1985-.

Mu Sigma Rho (national honorary society for Statistics)

National Vice-President 1991-94; President 1994-97; co-organizer College Bowl 1996-97 and Stat Bowl 2003; Council Rep 2000-2010.

Ecological Society of America, 1989-99.

Statistical Ecology Section Secretary-Treasurer 1992-94, Vice-Chair 1995-97, Chair 1997-99.

SELECTED USC COMMITTEE SERVICE

USC Statistics Program/Department

Director for Distance Education Graduate programs 2002-05, 2012-17.

Department Chair, 2005-12

Graduate Director 1996-2002

Undergraduate Director 1995-96

Director, Statistical Consulting Laboratory, 1983-87

University Committee on Distance Education 2010-12

Search Committee, University VP for Human Resources, 2010

Provost's Committee on NRC PhD program rankings, 2010

USC School of the Environment Education Committee, 1996-2010

University Committee on Tenure and Promotion, 2003-05

University Graduate Council 1997-2000

University Committee on Curriculum and Courses, 1997-2000

REVIEWER FOR (SELECTED):

Ecology; Ecological Monographs; Ecoscience; Journal of Agricultural, Biological, and Ecological Statistics; Journal of the American Statistical Association; Journal of Experimental Marine Biology and Ecology; Journal of Glaciology; Journal of the Royal Statistical Society, Series B; Journal of Statistics Education; Journal of Statistical Planning and Inference; Mathematical Geology; Statistical Science; Technometrics; The American Naturalist; The American Statistician; The Annals of Statistics.

GRADUATE STUDENT SUPERVISION

Total: 12 PhD, 33 MS, 17 MAS/MIS (=Master of Applied / Industrial Statistics)

2014	Doug Bryan, MAS	2001	Cecilia Huang MIS
2013	Holly Groover, MAS		Pearse Gaffney MIS
	David Wilcox, MAS	2000	Brian Shaffer, MS
2012	Hua Chen, PhD (joint with X. Lin)		Michael Vitti, MIS
	Jie Gao, PhD	1999	Sarah Crawford, MS
2011	Nancy Chalmers, PhD		Michael Dowd, MS
	Matt Lawrence, MS	1997	Aparna Merchant, PhD
	Lamont Flowers, MIS		W. Scott Street, IV PhD
	Jordan Smith, MAS		Jennifer Lasecki, MS
2010	Tom Labone, MIS		Claudia Moise, MS
2009	Codruta Chiuzan, MS		Beth Walters, MS
	Stoyan Gamishev, MS	1995	Melinda Higgins, MS
	Marisa Garcia-Quintana, MS		Laurie Little, MS
	Holly Battenhouse, MIS		Jennifer Simsick, MS
	Jeff Mobley, MIS	1994	Melinda McCann, PhD
2007	Melanie Autin, PhD		David Hardesty, MS
	Iliana Ignatova, PhD	1993	Yimei Zia, PhD
	Nanlin (Ross) Li, MS	1992	Gudipudi R. Rao, MS
	Megan Perez, MS	1991	Ping Sa, PhD
	Angela Bradham, MIS		Raymond Claus, MS
2006	Robert D'Zio, MIS	1990	Cathy Caldwell, MS
	Vince Earls, MIS	1989	Art Carter, MS
2005	Rob Parody, PhD	1988	Jack Berry, PhD
	Melanie Autin, MS		Cindy Beckworth, MS
2004	Teodor Gamishev, MS	1987	Ping Sa, MS
	Wendy Roth, MS	1986	Andy Bowden, MS
2003	David Stamps, MIS		Mary Gollwitzer, MS
2002	Ahmed Al-Hadhrami, MS	1985	Chuck Cornwell, MS
	Jamie Winterton, MS	1984	Curtis Amick, MS
	Stephen Colohan, MIS		Glenda Montgomery, MS
	Stephen Deas, MIS	1983	Gaudencio Zurita, MS

COURSES DEVELOPED (all with STAT designator)

Note: courses above 700 level are graduate-only courses; courses numbered 500-699 are either graduate or upper-division undergraduate; courses below 500 level are undergraduate-only. * = developed for, and/or taught by, distance delivery (webstreamed lectures).

- 201 Elementary Statistics (co-developed laboratory component with J. Spurrier, L. Thombs; co-revised with M. Petkewich 2012)
- Introduction to Experimental Design (co-developed with J. Lynch, J. Grego)
- 704* Data Analysis I
- 705* Data Analysis II
- 706 Experimental Design
- 708 Environmetrics I (co-developed with W. Piegorsch; = BIOS 808)
- 709 Environmetrics II (co-developed with W. Piegorsch, A. Lawson; = BIOS 809)
- 750* Response Surface Methodology

OTHER COURSES TAUGHT

- 509 Statistics for Engineers
- 511 Probability
- 512 Mathematical Statistics
- 513 Theory of Statistical Inference
- 515 Statistical Methods I
- 516 Statistical Methods II
- 519* Sampling
- 540* Computing in Statistics (*R* and SAS; formerly numbered 517)
- 700* Applied Statistics I
- 701* Applied Statistics II
- 702* Introduction to Statistical Theory I
- 703* Introduction to Statistical Theory II
- 714 Theory of Linear Statistical Models
- 715 Analysis of Variance
- 720 Time Series Analysis
- 730 Multivariate Analysis
- 790 Seminar in Statistical Consulting