

Dilcu Barnes, Ph.D.

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EDUCATION

Dec 2013	AUBURN UNIVERSITY <i>Ph.D. Industrial and Systems Engineering (Focus Areas: Reliability, Statistics)</i>	Auburn, AL
May 2011	AUBURN UNIVERSITY <i>Master of Industrial and Systems Engineering</i>	Auburn, AL
June 2007	YILDIZ TECHNICAL UNIVERSITY <i>Bachelor of Science, Industrial Engineering (with honors)</i>	Turkey

ACADEMIC EXPERIENCE

UNIVERSITY OF ALABAMA IN HUNTSVILLE Huntsville, AL
Clinical Assistant Professor/College of Business Administration
2017-Present

- MSC 287 Business Statistics I
Introduction to the concepts of probability and business statistics and the relation to business analytics. Topics include: tabular, graphical, and numerical methods for descriptive statistics; measures of central tendency, dispersion, and association for sets of data; probability; discrete and continuous probability distributions; the use of calculus in statistics; sampling and sampling distributions; introduction to confidence intervals
- MSC 288 Business Statistics II
Inferential statistics commonly used in business analytics. Topics include: review of sampling distributions and interval estimation; inferences about means, proportions and variances with one and two populations; goodness-of-fit tests; analysis of variance and experimental design; linear regression analysis
- MSC 600 Quantitative Methods
Introduction to the concepts and tools in business analytics. The topics covered include: hypothesis testing, ANOVA, linear regression, multiple regression, time series analysis and forecasting, linear programming, sensitivity analysis and waiting line models.
- MSC 610 Modeling and Simulation
This course gives an overview of Modeling and Simulation. It provides a variety of tools and techniques to help identify, understand, conceptualize, describe, outline, solve and analyze problems in general. Some special emphasis will be placed on business analytics concerns, such as statistics and operation analysis.

Other Teaching Assignment

- MSC 490 Special Projects, Fall 2022
- FYE-101B-First Year Experience Business: Thinking with Data, Fall 2020-Fall 2022

Adjunct Faculty/College of Business Administration
2015-2017

- MSC 287 Business Statistics I
- MSC 288 Business Statistics II

Adjunct Faculty/Industrial & Systems Engineering and Engineering Management
2014-2017

- ISE 690 Statistical Methods for Engineers
Application of statistics for estimation and inference using parametric and nonparametric methods. Descriptive statistics, sampling distributions, point and interval estimates, tests of hypotheses, Analysis of Variance (ANOVA) and regression
- ISE 638 Reliability Engineering
Methodology of reliability prediction including application of discrete and continuous distribution models. Reliability estimation, reliability logic diagrams, life testing, and reliability demonstrations

CALHOUN COMMUNITY COLLEGE

Huntsville, AL

Adjunct Faculty/Division of Business/CIS, Technologies & Workforce Development
2015-2017

- BUS 271 Business Statistics I
- BUS 272 Business Statistics II

ALABAMA A&M

Normal, AL

Adjunct Faculty/Master of Systems and Material Engineering
2014-2016

- SYE 560 Engineering Project Management
- GEN 603 Analysis and Simulation Methods
- GEN 500 Engineering Systems Analysis

AUBURN UNIVERSITY

Auburn, AL

Teaching Assistant/Instructor

08/2009-12/2013

- INSY 7380 Reliability Engineering
- INSY 4330 Statistical Quality Design and Control
- INSY 7300 Advanced Statistics I (Design of Experiments)
- STAT 3610/3611 Probability and Statistics II/Lab

Research Assistant

- Assisted in developing NASA Academy of Aerospace Quality site – aaq.auburn.edu (2009-2010)
- Assisted in organizing IEEE Conference in Orlando, FL (2010)
- Assisted in organizing Women in Engineering Advanced Workshop (2009)

SABANCI UNIVERSITY

Istanbul, Turkey

Teaching Assistant

01/2009-06/2009

- Assisted in teaching undergraduate Engineering Economics course

INDUSTRY EXPERIENCE

CAGRI INDUSTRY

Istanbul, Turkey

Quality Control Engineer

09/2007-07/2008

JOURNAL PUBLICATIONS

1. Maghsoodloo, S. and Barnes D. (2021) “On Moving Average Control Charts and Their Conditional Average Run Lengths”, *Quality and Reliability Engineering International*, Volume 37, Issue 8, pp: 3145-3156.
2. Barnes D. and Maghsoodloo, S. (2021) “A Moment Based Approximation for Expected Number of Renewals for Non-Negligible Repair”, *Mathematics and Statistics*, Volume 9, Number 5, pp: 773-779.
3. Maghsoodloo, S., West, R. and Barnes D. (2017) “A Statistical Study on the Variability of Aggregate Characteristics of Asphalt Mixtures”, *Advances and Applications in Statistics* Volume 51, Number 6.
4. Maghsoodloo, S. and Helvaci, D. (2014) “Renewal and Intensity Functions with Minimal Repair”, *Journal of Quality and Reliability Engineering* Volume 2014, ID 857437
5. Helvaci, D. and Maghsoodloo, S. (2014) “Renewal and Availability Functions”, *Advances and Applications in Statistics* Volume 43, Issue 1

CONFERENCE PRESENTATIONS

1. Loyd, N. J., Barnes, D., Burns, L. A., Annual Conference, “The Next Evolutionary Step for Toyota’s Culture of Experimentation”, Decision Science Institute, Virtual, November 20, 2021.

PROFESSIONAL ENGAGEMENT

- Madison County Residential Real Estate Report First Quarter April 2024” (co-author Dr. Brinda Mahalingam)
- Madison County Residential Real Estate Report Fourth Quarter January 2024” (co-author Dr. Brinda Mahalingam)
- Madison County Residential Real Estate Report Third Quarter October 2023” (co-author Dr. Brinda Mahalingam, Dr. Ege Can)
- Madison County Residential Real Estate Report Second Quarter July 2023” (co-author Dr. Brinda Mahalingam, Dr. Ege Can)
- “Madison County Residential Real Estate Report First Quarter April 2023” (co-author Dr. Brinda Mahalingam, Dr. Ege Can)

- Assisted in an economic impact study report, Military and Aerospace Impact on the State of Alabama FY 2019, Summer 2022

PROFESSIONAL DEVELOPMENT

- Attended Electronic Conference on Teaching Statistics (eCOTS) 2024 (Online) – 06/10/2024-06/13/2024
- Attended the Decision Science Institute Clinical Professor Career Consortium (Online)-11/13/2021
- Attended the Decision Science Institute 52nd Annual Conference (Virtual due to Covid-19) – 11/17/2021-11/20/2021
- Attended the United States Conference on Teaching Statistics (USCOTS) Expanding Opportunities 2021 Conference (Virtual due to Covid-19)- 06/28/2021-07/01/2021
- 2021 Teaching Professor Conference Participant (Virtual Due to Covid-19)-06/01/2021-09/01/2021
- Attended the International Association for Statistical Education (IASE) 2020 Roundtable Conference (Virtual due to Covid-19)- 07/06/2020-07/12/2020
- 2020 Teaching Professor Conference Participant (Virtual Due to Covid-19)-06/01/2020-09/01/2020
- Attended to the Master Teacher 30th Annual Workshop-05/09/2018-05/11/2018
- Took QEPO Online Instructor Training Course at UAH-Fall 2017
- Joined to the Grant Writing Workshop at UAH-09/21/2017-09/22/2017
- Joined the New Faculty Orientation at UAH- 08/14/2017-08/15/2017
- Human Factors Seminar Series (Auburn University, 2013)
- Cooper Industries Seminar Series on Industrial and Systems Engineering (Auburn University, 2009-2012)
- Management Lessons from CEO's Seminar (Turkey, 2006)

CERTIFICATES

- Applied Machine Learning Certificate, College of Professional Studies, UAH,2023
- Production Ready Machine Learning, College of Professional Studies, UAH,2023
- Developing Machine Learning Models, College of Professional Studies, UAH,2023
- Structuring Data for Machine Learning, College of Professional Studies, UAH,2022
- Brightman Master Teacher Program Certificate, Atlanta, 2018
- Quality Education Practices Online (QEPO) Certificate, Enhanced Teaching and Learning, UAH, 2017

PROFESSIONAL MEMBERSHIP

1. International Association for Statistical Education (IASE) since January 21
2. Decision Science Institute (DSI) since November 21
3. Member of Alpha Pi Mu Industrial Engineering Honor Society which confers recognition upon industrial engineering students that demonstrate exceptional academic interests and abilities in the field

SERVICE

- Reviewer of Mathematics and Statistics Journal-07/15/2021-Present
- Member of the UAH Governance and Senate Operations Committee-Fall 2023-Present
- SIE Working Group Member-Fall 2024-Present
- Member of the UG Scholastic Affairs Committee-Fall 2024-Present
- Member of the UAH Student Conduct Board- Fall 2021-Present
- Faculty Senate Representative at UAH –Fall 2018-Present
- Discussant for the IASE 2020 Roundtable Conference 2020 for the Following Topic: The Use of Real and Meaningful Data in Teaching and Learning Statistics- 07/06/2020-07/12/2020
- Served as a reviewer for a paper submitted to IASE 2020 Roundtable Conference -Review was done in March 2020
- MSC Faculty Search Committee Member-Fall 2020
- Member of the UAH Governance and Senate Operations Committee-Fall 2020-Spring 2022
- Member of the Undergraduate Curriculum Committee at UAH-Fall 2019-Fall 2020, Fall 2022-Present
- Member of the Faculty 180 Governance Committee at UAH-Fall 2019
- Member of the ETL-SSC Committee at UAH-Fall 2019-Fall 2022
- Faculty leader for International Business in Asia Pacific Program-Fall 2018

- Member of the Finance and Resources Committee at UAH-Fall 2018-Fall 2019
- MSC Faculty Search Committee Member-Fall 2018-Spring 2019

HONORS AND AWARDS

- C. David Billings Fellowship, College of Business, UAH, 2022-2023