Maria Calhoun
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Research Interests

- Nanostructured polymeric thin films
- Improving Spatial Visualization skills in first year engineering students
- Authentic Contexts in Engineering Education

Proposals funded

- Role: Principal Investigator. *Introduction of MINITAB to MENG 0237 Probability and Statistics for Manufacturing*. P&G Higher Education Grant. Awarded 2011.
- Role: Co-PI. *UCSF-Tuskegee Partnership in Bioengineering.* University of California System Award. 05/31/2013 - 4/30/2016.
- Role: Senior Personnel. *NSF-RISE: Enhancement of Research and Educational Infrastructure in Nanobiomaterials Science and Engineering at Tuskegee University*. The National Science Foundation. 4/01/2015-3/31/2018.
- Role: Principal Investigator. *Improving student engagement in freshman engineering graphics using Student Assistant for Visualization in Engineering (SAVE)*. The National Science Foundation. 9/01/2016 - 8/31/2019.

Education

- B. Sc. in Mathematics, Georgia State University, 1995
- M. Eng. in Mechanical Engineering, Tuskegee University, 2000
- Ph. D. in Materials Science and Engineering, Tuskegee University, 2009

Academic Experience

- Instructor - August, 2009 – August, 2010
- Assistant Professor - August, 2010 – May, 2018
- Associate Professor – May, 2018 – present

Non-academic Experience

Process Engineer, The Procter and Gamble Company, Cincinnati, Ohio, Product Supply engineering support in the area of nonwoven polymeric substrates, 2000 – 2004.

Current Membership in Professional Organizations

- American Society of Engineering Education (ASEE), member, 2012 - present
- American Society of Mechanical Engineers (ASME), member, 2013 - present
- Tuskegee University Chapter of Sigma Xi Research Society, member, 1999 - present
- Society of STEM Women of Color, member, 2017 - present
- American Mathematical Association of Two Year Colleges (AMATYC), member, 2014 – present

Honors and Awards

- Tuskegee University Outstanding Faculty Performance Award for Service in the College of Engineering 2015 – 2016
- Tuskegee University Chapter of Alpha Phi Alpha Fraternity, Incorporated, Golden Apple Award, 2016
- College of Engineering Faculty of the Year Award, Tuskegee Business and Engineering Conference (TUBE), 2014.
- The National Society of Leadership and Success Excellence in Teaching Award, April 2014.
- Tuskegee University Outstanding Faculty Performance Award for Teaching in the College of Engineering 2011 – 2012.
- College of Engineering Faculty of the Year Award, Tuskegee Business and Engineering Conference (TUBE), 2011.

Service

- Assistant to the Dean for Recruitment and Retention, 2017 – present
- SACSCOC QEP committee 2017 – present
- Trustee, Alabama School of Fine Arts, Birmingham, AL 2017 – present
- College of Engineering Advising Coordinator, Tuskegee University, 2015 – present
- President, Sigma Xi Research Society, Tuskegee Chapter, 2016-2018
- Vice President, Sigma Xi Research Society, 2015 – 2016
- Chair, Tuskegee University College of Engineering Scholarship Committee, 2016 – present
- Joint Annual Research Symposium planning committee, 2015 – present
- Faculty Advisor, Pi Tau Sigma Mechanical Engineering Honor Society, Tuskegee University, 2010 – present
- Scholarship Appeals committee, Tuskegee University, 2014 – 2015
- Engineering Faculty Committee Chair, Tuskegee University Business and Engineering Conference (TUBE), 2010 – present
- ASEE Southeastern Region Proposal Reviewer, 2015 – present
- Session moderator AMAYTC Conference, 2015
- Judge, ABRCMS Conference, 2016

Recent Publications and Presentations

- Treyvon Bryant, **Maria Calhoun**, Chitra Nayak. The Development of Online Gaming Application for Spatial Visualization. Florida International University McNair Scholars Conference, Miami, FL, October 20-22, 2017.

- Treyvon Bryant, **Maria Calhoun**, Chitra Nayak. The Development of Online Gaming Application for Spatial Visualization. Tuskegee University REU, Tuskegee, AL. July, 2017.
- Erin Johnson, **Maria Calhoun Charlton**, Ovais Khan, Chitra Nayak and Lauretta Garrett. Improving student engagement in freshman engineering graphics using Student Assistant for Visualization in Engineering (SAVE), Joint Annual Research Symposium, Tuskegee University, March 17, 2017.
- Lauretta Garrett, Mohammed Qazi, Li Huang, **Maria Calhoun Charlton**, Personally Authentic Projects and Problems for College Mathematics. Proceedings from the 42nd Annual AMATYC Conference, Denver, CO, November 17 - 20, 2016.
- Lauretta Garrett, **Maria Calhoun** and Li Huang, A Framework for Authenticity in the Mathematics and Statistics Classroom. Mathematics Educator, Vol. 25 (1), 32-54, 2016.
- Vimal Viswanathan, **Maria Calhoun Charlton**, Improving Student Learning Experience in an Engineering Graphics Classroom through a Rapid Feedback and Resubmission Cycle, Proceedings from the 2015 ASEE Conference, Seattle, WA, June 14-17, 2015.
- Lauretta Garrett, **Maria Calhoun Charlton**, Li Huang. Authentic Contexts in College Mathematics Learning. Presentation, National Council of Teachers of Mathematics 2015 Annual meeting and Exposition, Boston, MA, April 2015.
- Lauretta Garrett, **Maria Calhoun** and Li Huang, Authentic Contexts in College Mathematics Instruction. Proceedings from the 40th Annual AMATYC Conference, Nashville, TN, November 14 – 16, 2014.
- Lauretta Garrett, **Maria Calhoun**, Li Huang. Authentic Contexts in College Mathematics Learning. Presentation, University STEM Education Seminar, Auburn University, Auburn, AL, March 2014.