

H. Justin Ballenger, Ph.D.

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EDUCATION

Ph.D., Curriculum and Instruction for STEM Education | Clemson University (2015)

- *Dissertation:* Faculty & Staff Perceptions of Challenges to Growth and Meeting Student Population Needs.
- *Areas of Study:* STEM Education, Collective Impact, Virtual Learning Environments, Broadening Participation.

M.A.T., Middle Grades Science and Mathematics | Clemson University (2006) **B.S., Biological Sciences** | Clemson University (2004) **A.A., Biblical Studies** | North Carolina College of Theology (2007)

ADMINISTRATIVE & ACADEMIC APPOINTMENTS

2025 – Present | Department Chair, Education Department Morehouse College, Atlanta, GA

- **Leadership Context:** Lead administrator facilitating academic programming, resource management, and strategic planning.
- **Key Contributions:** Leading personnel hiring; supervising departmental decision-making; overseeing PCS Division strategic plan implementation and accreditation efforts.

2021 – Present | Assistant Professor of STEM Education Division of Professional Studies & Continuing Education, Morehouse College, Atlanta, GA

2022 – 2025 | Research Lead National Data Science Alliance (NDSA), Clark Atlanta University

- **Key Contribution:** Designed and led the integration of collective impact strategies across 103 participating HBCUs; managed the research program funded by NSF Award #2217346.

2022 – 2024 | Deputy Director AUC Data Science Initiative (DSI), Atlanta University Center Consortium

- **Key Contribution:** Co-led the development of the undergraduate data science minor; coordinated research publication collaborations across AUC member institutions; led the AUC K-12 Data Science Working Group.

2019 – 2021 | Director, STEM Education Innovation (SEI) Lab *Mercer University, Atlanta, GA*

- **Key Contribution:** Led the launch of the SEI Lab, coordinating interdisciplinary STEM education researchers and administering grant-funded projects.

2016 – 2021 | Assistant Professor of STEM Education *Tift College of Education, Mercer University, Atlanta, GA*

- **Key Contribution:** Served as Program Coordinator for MAT & MEd Middle Grades/Secondary Education programs and the STEM Endorsement.

2012 – 2015 | Program Coordinator, Call Me MISTER Program *Jackson State University, Jackson, MS*

- **Key Contribution:** Engaged in strategic planning for recruiting and developing males of color in public schools; coordinated partnerships with the W.K. Kellogg Foundation and Mississippi Department of Education.

SCHOLARSHIP & CREATIVE ACTIVITY

Organized by Departmental Tenure Guidelines (Traditional, Multimodal, Public).

I. Traditional Peer-Reviewed Scholarship (Category 1)

Standard academic output demonstrating intellectual rigor and peer validation.

Books & Book Chapters

1. **Ballenger, H.J.**, Bennett, V., & Ellis, V. (2025). *AI-Powered Pedagogy: A Critical and Creative Guide for K-12 Teachers*. Kendall-Hunt. **[Scholarly Book]**
2. **Ballenger, H.J.** (Under Contract). The Power of Community: Creating a Healthy Space to Develop as a Black Man in Academia. In D.R. Brooms, D. A. Brice, J.R. Ford (Eds.), SUNY Press. **[Peer-Reviewed Chapter]**
3. Pough, N.O. & **Ballenger, H.J.** (2025). Data Dialogues: What Are We REALLY Talking About? In S. Sackstein & A. Laing (Ed.), *Solving School Challenges: The Everything Guide to Transformative Change* (pp. 86-90). Routledge. **[Peer-Reviewed Chapter]**
4. **Ballenger, H.J.**, Bennett, V., & Ellis, V. (In Press). Research Practice Partnerships in STEM Education. In *Clinically Based Teacher Education in Action, Volume X: The AACTE Clinical Practice Commission Proclamations*. **[Peer-Reviewed Chapter]**

Peer-Reviewed Journal Articles

1. Brooms, D. R. & **Ballenger, H.J.** (In Press/Accepted). "Love has to be part of what you're doing": Exploring Black Men Teachers' Pedagogical Practices with Black Boys. *Urban Education Journal*.
2. **Ballenger, H.J.**, Bennett, V., & Ellis, V. (In Press/Accepted). Experiential Learning in Geoscience: A Case Study of Multi-Institutional Research-Practice Partnerships. *Urban Education Journal*.
3. Martínez-Farrington, I.M., ... **Ballenger, H.J.**, et al. (2024). In pursuit of conference equity. *Oceanography*, 37(2):188–189.
4. Ekong, D., Walthall, S., & **Ballenger, H. J.** (2018). Lessons Learned Using Mobile APP Development to Foster Female Students' Interest in STEM. *Transactions on Techniques in STEM Education*, 4(1), 29-34.
5. Gilmore, J. A., **Ballenger, H. J.**, & Burg, K. (2016). Bone Tissue Engineering: An Interactive Design Module. *Science Scope*, 39(9), 26-34. 1
6. **Ballenger, H. J.**, Burg, T., & Jones, R. (2016). Cultivating STEM Achievement Among Boys of Color. *International Colloquium on Black Males in Education*.

II. Multimodal & Creative Scholarship (Category 2)

Creative works accompanied by scholarly apparatus demonstrating methodology and analysis.

1. **Ballenger, H.J.** (2025). *Nelson Meets Sparky* [Children's Book]. Kendall Hunt.
 - *Scholarly Basis*: Developed using culturally responsive literacy frameworks to enhance STEM identity in early childhood.
2. Snead, D. & **Ballenger, H.J.** (2024). *The Temporal Tenth* [Comic]. Subsume Media.
3. **Ballenger, H.J.** (2025). Episode 268: Does AI Have a Role in Education? [Audio podcast]. *Scholars Strategy Network*.
4. **Ballenger, H.J.**, McGrane, G., & Duckenfield, M. (2018). *Building Authentic Relationships*, Revised Electronic Course 2nd Edition. National Drop-out Prevention Center.

III. Public, Practitioner, & Applied Scholarship (Category 3)

Scholarship improving practice in PK-12 settings and public engagement.

1. Washington, T. M., **Ballenger, H. J.**, & Daniel, E. (2025). Leveraging multi-institutional collaborations to unlock impactful undergraduate data science programs. *SIAM News*.
2. **Ballenger, H. J.** (2024, Nov 5). The AI Revolution: Why Education Departments Must Prepare Teachers for the Future. *Higher Education Digest*.
3. **Ballenger, H. J.** (2023). [Book Review] Critical data literacies: Rethinking data and everyday life. *Teachers College Record*, 125(10), 1-3.
4. **Ballenger, H. J.**, et al. (2023). *AUC Data Science Initiative - Data Science for K-12 Listening Session Report*. Social Science Research Network.

5. Adofoli, V., **Ballenger, H.J.**, & Vazquez, E. (2020). *Atlanta's Citizen Review Board & Police Accountability* (Report No. ULF 2020-07). Urban Leaders Fellowship.
6. **Ballenger, H. J.** & Pough, N. O. (2020). Towards Recognizing the Value of Culturally Responsive Schools. *ASCD EdAdvantage*, 16(12).

GRANTS & SPONSORED RESEARCH

A. Funded Grants (Awarded)

Total Funding Secured as PI/Co-PI: ~\$8.85 Million

1. **Principal Investigator.** (2025–2027). *Modern Algebra 2 Integration – Sub-Award*.
 - **Sponsor:** Valhalla Foundation / Rand Corporation **Amount:** \$57,000.
2. Gosha, K. & **Ballenger, H.J.** (Co-PI). *Excellence in Research: Evaluation of Racial Trends in Computer Science Education* (NSF #2502942). **Amount:** \$349,000.
3. **Co-Principal Investigator.** (2025–2027). *Atlanta University Center (AUC) Google Computer Science (CS) Ecosystem*.
 - **Sponsor:** Google Foundation. **Amount:** \$500,000.
4. **Co-Principal Investigator.** (2024–2028). *Institute for African Americans in Computing Sciences (IAAMCS) National Network*. Award #2417833.
 - **Sponsor:** National Science Foundation (BPC-AE). **Amount:** \$5,999,995.
5. **Co-Principal Investigator.** (2024–2028). *Collaborative: Evolution of IAAMCS*. Award #2425244.
 - **Sponsor:** National Science Foundation. **Amount:** \$30,000.
6. **Co-Principal Investigator.** (2022–2025). *Collaborative: Evolution of IAAMCS*. Award #2216622.
 - **Sponsor:** National Science Foundation. **Amount:** \$1,816,414.
7. **Principal Investigator.** (2022–2025). *ML Bots – Sub-Award*.
 - **Sponsor:** NASA. **Amount:** \$120,000.
8. **Principal Investigator.** (2022–2024). *AUC Data Science Initiative Teacher Fellows*.
 - **Sponsor:** Georgia Space Grant Consortium. **Amount:** \$20,000.
9. **Principal Investigator.** (2021). *ACRB/SEI Lab Educator Fellows Program*.
 - **Sponsor:** Police Foundation of Atlanta. **Amount:** \$19,000.
10. **Principal Investigator.** (2021). *Youth Eco-Engage Project & Oko-Saga STEM Project*.
 - **Sponsors:** Hines Family Foundation / Georgia Space Grant. **Total:** \$35,000.
11. **Principal Investigator.** (2020). *AgSTEM Education Pilot*.
 - **Sponsors:** Gwinnett Soil & Water Conservation / Mercer University. **Amount:** \$64,000.
12. **Principal Investigator.** (2018). *AgSTEM Teaching and Learning in the Dominican Republic*.
 - **Sponsor:** Mercer on Mission. **Amount:** \$50,000.

B. Grants Submitted / Under Review

Note: Numbering restarted to distinguish from awarded portfolio.

1. **Ballenger, H.J.** (PI). *Map the Gap - Empowering Youth to Engage in STEM*. (NSF #2517381). **Amount:** \$1,834,515.
2. **Ballenger, H.J.** (PI). *CAREER: HBCU STEM Educ-AI-tion Lab*. (NSF #2442110). **Amount:** \$566,489.
3. Robinson, N. & **Ballenger, H.J.** (Co-PI). *T.E.A.C.H. ML*. (NSF #2508827). **Amount:** \$2,684,819.

C. Grants Submitted / Funded

Note: Numbering restarted to distinguish from awarded portfolio.

1. Bennett, V., Ballenger, H. J., & Ellis, V. (Submitted 2024). AI Integration in K12 Instruction. Agency: Institute of Education Sciences (IES). Amount: \$4,633,183.
- 2.

SERVICE TO THE COLLEGE & PROFESSION

Service to Morehouse College

- **Chair, PCS Curriculum Committee (2023 – Present):** Review and approve curriculum proposals for the Division of Professional and Continuing Studies.
- **Research Director, Morehouse Center for Excellence in Education (MCEE):** Coordinate research agendas and facilitate faculty scholarship.
- **Member, AI Policy Working Group (2024 – Present):** Develop institutional policies regarding Generative AI.

Service to the Profession

- **Faculty Advisor, National Space Council (2021 – 2025):** Advised federal leadership on broadening participation in aerospace industries.
- **Faculty Advisor, NASA Transform to Open Science (2022 – Present):** Provide guidance on open science curriculum for minority-serving institutions.
- **National Advisory Board, Data Science for Everyone (DS4E):** Advise on national K-12 data science implementation standards.

CERTIFICATIONS & LICENSES

- **National Board Certification (NBCT):** Science/Early Adolescence. *Recognized as the gold standard for teaching excellence.*
- **Certified Teacher (GA & SC):** Science, Math, & Entrepreneurship (Grades 5–12). *Qualified to supervise clinical practice and student teaching.*
- **AdvancED/Cognia:** STEM Certification Evaluator.
- **Data Science:** Google Data Studio; Google AI Essentials.

FELLOWSHIPS & HONORS

- **HBCU-IP Fellow, Michelson Institute (2024-25):** Selected for competitive fellowship on Intellectual Property education.
- **NSF STEM Seas Fellow (2023):** Ship-based experiential learning fellowship to improve geoscience instruction.
- **Scholar Strategy Network Fellow (2024 – 2025):** Dedicated to improving public dissemination and policy impact of research.
- **Edward Bouie Award for Faculty Research (2021):** Tift College of Education, Mercer University.
- **Collaborator of the Year (2018):** I Am B.E.A.U.T.I.F.U.L. Inc.
- **Master Teacher Designation (2016):** Call Me MISTER Program, Clemson University.
- **Mentorship Award (2015):** National Society of Black Engineers.