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## 1. Education

- Ph.D. University of South Carolina, Mechanical Engineering, 2006.  
Dissertation: Embracing Complexity in Engineering Education
- M.E. University of South Carolina, Mechanical Engineering, 2004.
- B.S. University of South Carolina, Mechanical Engineering, 2002.
- B.S. College of Charleston, Physics, Math (Minor), 2002.

## 2. Professional Positions Held

- 2023-present Associate Director for Research Excellence, The Polytechnic School, Ira A. Fulton Schools of Engineering
- 2014-present Associate Professor, Arizona State University
- 2022-2023 Ex Officio Member of the ASEE Board of Directors, Finance Committee, 2022-present.
- 2021-present Co-VP Scholarship, American Society for Engineering Education (ASEE)
- 2021-present Co-Chair ASEE Committee on Scholarly Publications
- 2019-present Deputy Editor, Journal of Engineering Education
- 2019-2020 Engineering Education Systems and Design Graduate Program Chair, Arizona State University
- 2012-2014 Associate Professor, University of Georgia
- 2006-2012 Assistant Professor, University of Georgia

## 3. Summary of Publications

Key: †ASU Postdoctoral Researcher, bold font Graduate Student, \*Corresponding Author.

### a. Books and Book Chapters (3)

- 1) Kellam, N., Coley, B., & Boklage, A. (2019). Transformative Teaching: A Collection of Stories of Engineering Faculty's Pedagogical Journeys. *Synthesis Lectures on Engineering*, 13(2), 1–125. <https://doi.org/10.2200/S00911ED1V01Y201903ENG035>
- 2) Hill, R. B., Kellam, N. N., & Gattie, D. K. (2008). Chapter 6: Essential Mathematics and Science Content as a Base for Understanding and Teaching Engineering

- Principles. In R. L. Custer & T. L. Erikson (Eds.), *Engineering and Technology Education* (Vol. 57, pp. 103-132). Ann Arbor: McGraw Hill.
- 3) Russell, J. A., Peters, W. H., Kellam (Craig), N. N., & Coull, B. C. (2005). "2.2: Systems and Ecosystems". In M. A. Abraham (Ed.), *Sustainability Science and Engineering*, Volume 1: Defining Principles. New York: Elsevier.

**b. Editorials: 2**

- 1) Benson, L., Finelli, C., Kellam, N. & Zappe, S. Trying Times (2020), *Journal of Engineering Education*, 109(3), 351-52, <https://doi.org/10.1002/jee.20346>
- 2) Kellam, N. & Cirell, A. Quality Considerations in Qualitative Inquiry: Expanding Our Understanding for the Broader Dissemination of Qualitative Research (2018), *Journal of Engineering Education*, 107(3), 355-61, <https://doi.org/10.1002/jee.20227>

**c. Peer-Reviewed Journal Publications: 22**

- 1) Svihla, V., Davis, S. C., & Kellam, N. (2023). The TRIPLE Change Framework: Merging Theories of Intersectional Power, Learning, and Change to Enable Just, Equitable, Diverse, and Inclusive Engineering Education. *Studies in Engineering Education*, 4(2), 38–63. <https://doi.org/10.21061/see.87>
- 2) Kellam, N., & Jennings, M. (2021). Uncovering Epistemologies and Values of Our Qualitative Engineering Education Research Community: Listening for Voices. *Studies in Engineering Education*, 2(1), 80–99. <http://doi.org/10.21061/see.37>
- 3) Cruz, J., Bruhis, N., Kellam, N., & Jayasuriya, S. (2021). Students' implicit epistemologies when working at the intersection of engineering and the arts. *International Journal of STEM Education*, 8(1), 29. <https://doi.org/10.1186/s40594-021-00289-w>
- 4) †Boklage, A., Coley, B., & Kellam, N. (2019). Understanding engineering educators' pedagogical transformations through the Hero's Journey. *European Journal of Engineering Education*, 44(6), 923–938. <https://doi.org/10.1080/03043797.2018.1500999>
- 5) Cruz, J. & \*Kellam, N. (2018). Beginning an Engineer's Journey: A Narrative Examination of How, When, and Why Students Choose the Engineering Major. *Journal of Engineering Education*, 107(4), 556-82, <https://doi.org/10.1002/jee.20234>
- 6) \*Kellam, N., Gerow, K., Wilson, G., Walther, J., & Cruz, J. (2018). Exploring emotional trajectories of engineering students: A narrative research approach. *International Journal of Engineering Education*, 34(6), 1726-40.
- 7) Walther, J., Sochacka, N., Benson, L., Bumbaco, A., Kellam, N., Pawley, A., & Philips, C. (2017). Qualitative research quality – a collaborative inquiry from multiple methodological perspectives. *Journal of Engineering Education*, 106(3): 398-430. <https://doi.org/10.1002/jee.20170>
- 8) Cruz, J. & \*Kellam, N. (2017). Restructuring Structural Narrative Analysis Using Campbell's Monomyth to Understand Participant Narratives. *Narrative Inquiry*, 27(1), 169-86. <https://doi.org/10.1075/ni.27.1.09cru>

- 9) **Guyotte, K.**, Sochacka, N., Costantino, T., Kellam, N., & Walther, J. (2015). Collaborative Creativity in STEAM: Narratives of Art Education Students' Experiences in Transdisciplinary Spaces. *International Journal of Education & the Arts*, 16(15), 1-38.  
[Dr. Guyotte was a Doctoral Candidate mentored and funded by Drs. Kellam, Costantino, and Walther]
- 10) **Guyotte, K.**, Sochacka, N., Costantino, T., Walther, J., & Kellam, N. (2014). STEAM as Social Practice: Cultivating Creativity in Transdisciplinary Spaces. *Art Education*, 26(6), 12-19. <https://doi.org/10.1080/00043125.2014.11519293>
- 11) Costantino, T., **Guyotte, K.**, Kellam, N. & Walther J., (2014). Seeing Experiences of Interdisciplinarity through Student Artwork: Exploring Different Approaches to Analysis. *International Review of Qualitative Research*, 7(2), 217-35. <https://doi.org/10.1080/00043125.2014.11519293>
- 12) Walther, J., Sochacka, N., & Kellam, N. (2013). Quality in interpretive engineering education research: Reflections on an Example Study. *Journal of Engineering Education*, 102(4), 626-59.
- 13) Kellam, N. N., Walther, J., Costantino, T., & Cramond, B. (2013). Integrating the Engineering Curriculum through the Synthesis and Design Studio. *Advances in Engineering Education*, 3(3), 1-33.
- 14) Gattie, D. K., Kellam, N. N., Schramski, J. R., & Walther, J. (2011). Engineering Education as a Complex System, *European Journal of Engineering Education*, 36(6), 521-35.
- 15) Walther, J., Kellam, N. N., Sochacka, N., & Radcliffe, D., (2011). Engineering competence? An interpretive investigation of engineering students' professional formation, *Journal of Engineering Education*, 100(4), 703-40.
- 16) Costantino, T., Kellam, N. N., Cramond, B., & Crowder, I. (2010). An interdisciplinary design studio: How can art and engineering collaborate to increase students' creativity. *Art Education*, 63(2), 49-53.
- 17) Schramski, J. R., Patten, B. C., Kazanci, C., Gattie, D. K., & Kellam, N. N. (2009). The Reynolds transport theorem: Application to ecological compartment modeling and case study of ecosystem energetics. *Ecological Modelling*, 220(22), 3225-32.
- 18) **Kelley, T.** & Kellam, N. N. (2009). A theoretical framework to guide the re-engineering of technology education. *Journal of Technology Education*, 20(2), 36-48.  
[Dr. Kelley was a Doctoral Candidate mentored by Dr. Kellam]
- 19) Kellam, N. N., Maher, M. A., & Peters, W. H. (2008). The faculty perspective on holistic and systems thinking in American and Australian Mechanical Engineering programmes. *European Journal of Engineering Education*, 33(1), 45-57.
- 20) Gattie, D. K., Kellam, N. N., & Turk, H. J. (2007). Informing Ecological Engineering through Ecological Network Analysis, Ecological Modelling, and Concepts of Systems and Engineering Ecology. *Ecological Modelling*, 208(1), 25-40.
- 21) Kellam, N. N., Maher, M., Russell, J., Addison, V., & Peters, W. H. (2007). Benchmarking the Integration of Complex Systems Study in Mechanical Engineering Programs in the Southeastern United States. *The International Journal of Mechanical Engineering Education*, 35(3), 256-70.

- 22) Donath, L., Spray, R., Thompson, N. S., Alford, E. M., Kellam, N. N., & Matthews, M. A. (2005). Characterizing Discourse among Undergraduate Researchers in an Inquiry-Based Community of Practice. *Journal of Engineering Education*, 94(4), 403-17.

**d. Peer-Reviewed Conference Proceedings: 76**

- 1) **Sajadi, S.**, Kellam, N. & Brunhaver, S. (2023), *Exploring composite narratives as a methodology to understand and share research findings in engineering education*. Paper to be presented at 2023 ASEE Annual Conference & Exposition.
- 2) **Halkiyo, J., Jennings, M.**, Halkiyo, S. & Kellam, N. (2023), *Ethiopian Women Students' Recommendations for Enhancing Their Sense of Belonging in Engineering Education*. Paper to be presented at 2023 ASEE Annual Conference & Exposition.
- 3) Kellam, N & **Jennings, M.** (2022), *Qualitative Engineering Education Researchers and our Relationships with Data: Exploring our Epistemologies and Values as a Community*. Paper presented at 2022 ASEE Annual Conference & Exposition. <https://peer.asee.org/41088>
- 4) **Vignesh Sundaram, B.** & Kellam, N. (2022), *Integrating Teacher Empathy into the Engineering Classroom one Educator at a Time: An Action Research Study*. Paper presented at 2022 ASEE Annual Conference & Exposition. <https://peer.asee.org/40527>
- 5) Svihla, S., Kellam, N., & Davis, S. (2022), *The Consequential Agency of Faculty Seeking to Make Departmental Change*. Paper presented at 2022 ASEE Annual Conference & Exposition. <https://peer.asee.org/41999>
- 6) **Vignesh Sundaram, B.**, Kellam, N., & Jordan, S. (2021), *Understanding the perspectives of empathy among engineering faculty members*. Paper presented at 2021 ASEE Annual Conference & Exposition. <https://peer.asee.org/37971>
- 7) Davis, S., Kellam, N., Svihla, V., **Vignesh Sundaram, B.**, & **Kalkiyo, J.** (2021), *Powerful Change Attends to Power Relations*. Paper presented at 2021 ASEE Annual Conference and Exposition <https://peer.asee.org/37590>
- 8) **Dredd, D.**, Kellam, N., & Jayasuriya, S. (2021). Zen and the Art of STEAM: Student Knowledge and Experiences in Interdisciplinary and Traditional Engineering Capstone Experiences. *2021 IEEE Frontiers in Education Conference (FIE)*, 1–9. <https://doi.org/10.1109/FIE49875.2021.9637284>
- 9) **La Place, C.**, **Halkiyo, J.**, Sheppard, M., Kellam, N., & Carberry, A. (2021). Cultivating an Additive Innovation Culture through the Communal Observations of New EXperiences in Teaching (CONEXT) Protocol. *2021 IEEE Frontiers in Education Conference (FIE)*, 1–5. <https://doi.org/10.1109/FIE49875.2021.9637195>
- 10) **Jennings, M.**, **Sandoval, J.**, Sanders, J., Koro, M., Kellam, N., & Jayasuriya, S. (2021). Use of AI-Generated Visual Media in Interviews to Understand Power Differentials in Gender, Romantic, and Sexual Minority Students. *2021 IEEE Frontiers in Education Conference (FIE)*, 1–4. <https://doi.org/10.1109/FIE49875.2021.9637396>
- 11) Kellam, N., Svihla, V., Davis, S., **Sajadi, S.**, & **Desiderio, J.** (2021), Using Power, Privilege, and Intersectionality to Understand, Disrupt, and Dismantle Oppressive Structures within Academia: A Design Case. *Proceedings of 2021 CoNECD - The*

*Collaborative Network for Engineering and Computing Diversity.*

<https://peer.asee.org/36136>

- 12) Kellam, N., Boklage, A., Coley, B., & Liu, Y. (2021). Promising practices that promote inclusivity at University-affiliated makerspaces within schools of engineering. *Proceedings of 2021 CoNECD - The Collaborative Network for Engineering and Computing Diversity.* <https://peer.asee.org/36115>
- 13) Lee, E., & Bekki, J. M., & Carberry, A. R., & Kellam, N. N. (2021, January), Conceptualization and Situating of Sense of Belonging Among International Engineering Doctoral Students: In Light of the Previous Literature. *Proceedings of 2021 CoNECD - The Collaborative Network for Engineering and Computing Diversity.* <https://peer.asee.org/36075>
- 14) Jennings, M., Roscoe, R. D., Kellam, N. N., & Jayasuriya, S. (2020, June), A Review of the State of LGBTQIA+ Student Research in STEM and Engineering Education, Paper presented at 2020 ASEE Virtual Annual Conference, 10.18260/1-2—34045
- 15) Kittur, J., Coley, B. C., & Kellam, N. N. (2020, June), Understanding how Novice Indian Faculty Engage in Engineering Education Research, Paper presented at 2020 ASEE Virtual Annual Conference. 10.18260/1-2—35423
- 16) Huff, J., Löngrenn, J., Adawi, T., Kellam, N., Villanueva, I. (2020). Special Session: Emotions in engineering education – A roadmap to possibilities in research and practice, *Proceedings of the Frontiers in Education Conference.*
- 17) Kellam, N., Svihla, V., & Davis, S. (2020). The POWER Workshop: Building Awareness of Power and Privilege on Intersectional Teams, *Proceedings of the Frontiers in Education Conference, Virtual.*
- 18) Edström, K., Benson, L., Mitchell, J., Bernhard, J., van den Bogaard, M., Finelli, C., Kellam, N., Lee, M., Lord, S., Rover, D., Saliyah-Hassane, H., Zappe, S. (2020). Review Unto Others As You Would Have Others Review Unto You, *Proceedings of the Frontiers in Education Conference.*
- 19) Jennings, M., Coley, B., & Kellam, N. (2019). Special Session: Exploring the Struggles of Diverse Engineering Students through Stories and Imagining a Future with an Inclusive Culture, *Proceedings of the Frontiers in Education Conference.*
- 20) Jennings, M., Kellam, N., Coley, B. & Bruhis, N. (2019). Suggestions for Responsible Qualitative Research with Transgender Engineering Students Using an Auto-Ethnographic Approach, *Proceedings of the Frontiers in Education Conference.*
- 21) Lam, C. K., Cruz, S. N., Kellam, N. N., & Coley, B. C. (2019, June), *Making Space for the Women: Exploring Female Engineering Student Narratives of Engagement in Makerspaces*, Paper presented at 2019 ASEE Annual Conference & Exposition. <https://peer.asee.org/33078>
- 22) Jennings, M., Coley, B. C., Boklage, A. R., & Kellam, N. N. (2019, June), *Listening to Makers: Exploring Engineering Students' Recommendations for Creating a Better Makerspace Experience*, Paper presented at 2019 ASEE Annual Conference & Exposition. <https://peer.asee.org/33067>
- 23) Cruz, J. M., Bruhis, N., Kellam, N. N., & Jayasuriya, S. (2019, June), Work in Progress: Epistemologies and Discourse Analysis for Transdisciplinary Capstone Projects in a Digital Media Program, Paper presented at 2019 ASEE Annual Conference & Exposition, Tampa, Florida. <https://peer.asee.org/32353>

- 24) **Greene, M. L.**, Kellam, N. N., & Coley, B. C. (2019, April), Black Men in the Making: Engaging in Maker Spaces Promotes Agency and Identity for Black Males in Engineering, Paper presented at 2019 CoNECD - The Collaborative Network for Engineering and Computing Diversity, Crystal City, Virginia. <https://peer.asee.org/31744>
- 25) \***Lee, E.**, Bekki, J. M., Carberry, A. R., & Kellam, N. N. (2019, April), Understanding International Engineering Doctoral Students' Sense of Belonging Through Their Interpersonal Interactions in the Academic Community, Paper presented at 2019 CoNECD - The Collaborative Network for Engineering and Computing Diversity, Crystal City, Virginia. <https://peer.asee.org/31803>
- 26) **Sheppard, M. S.**, Kellam, N. N., & Brunhaver, S. R. (2019, April), Exploring the Unique Skills and Challenges that Veterans with Disabilities Bring to College: A Qualitative Study in Engineering, Paper presented at 2019 CoNECD - The Collaborative Network for Engineering and Computing Diversity, Crystal City, Virginia. <https://peer.asee.org/31763>
- 27) Kellam, N., Cirell, A., Boklage, A. & Coley, B. (2018). Exploring I-poems to Explore the Identity of Underrepresented Engineering Student Makers. *Proceedings of the Frontiers in Education Conference*, San Jose, CA. ISBN: 978-1-5386-1174-6/18
- 28) **Sheppard, M.**, Carberry, A. & Kellam, N. (2018). Exploring Pedagogical Risk-Taking in the Classroom. *Proceedings of the Frontiers in Education Conference*, San Jose, CA, ISBN: 978-1-5386-1174-6.
- 29) **Sheppard, M.**, Brunhaver, S. & Kellam, N. (2018). Soldier to Student: Exploring the Unique Skills and Challenges Veterans with Disabilities Bring to College. *Proceedings of the Frontiers in Education Conference*, San Jose, CA, ISBN: 978-1-5386-1174-6/18
- 30) †Boklage, A., Kellam, N. N., †Cirell, A. M., & Coley, B. C. (2018, June), *An Exploration of the Diverse Stories of Engineering Students at Community Colleges: Findings from Year One*, Paper presented at 2018 ASEE Annual Conference & Exposition , Salt Lake City, Utah. <https://peer.asee.org/30092>
- 31) \*Kellam, N. N., †Cirell, A. M., Coley, B. C., & †Boklage, A. (2018, June), *Making a New Path: Lessons Learned During the 'Making the Data' Phase of our Project* Paper presented at 2018 ASEE Annual Conference & Exposition , Salt Lake City, Utah. <https://peer.asee.org/30094>
- 32) McKenna, A. F., Bekki, J. M., Brunhaver, S. R., Carberry, A. R., Kellam, N. N., Lande, M., London, J. S., & Jordan, S. S. (2018, June), *Progress on the Pathway to Instigating a Revolution of Additive Innovation* Paper presented at 2018 ASEE Annual Conference & Exposition , Salt Lake City, Utah. <https://peer.asee.org/29856>
- 33) Kellam, N., Coley, B., & †Boklage, A. (2017). “A Long Way Coming”— Understanding Engineering Educators' Transformations to Student-Centred Teaching through the Hero's Journey. *Proceedings of the 7th Research in Engineering Education Symposium (REES)*, Bogota, Columbia.
- 34) Kellam, N., †Coley, B., & †Boklage, A. (2017). Story of change—Using experience-based critical event narrative analysis to understand an engineering program's culture. *Proceedings of the 7th Research in Engineering Education Symposium (REES)*, Bogota, Columbia.

- 35) \*Bekki, J. M., **Ayela-Uwangue, A.**, Brunhaver, S. R., Kellam, N. N., Lande, M., & McKenna, A. F. (2017, June), I Want to Try That Too! Development of a Conceptual Framework for Interventions that Encourage Pedagogical Risk-Taking Among Faculty, Paper presented at 2017 ASEE Annual Conference & Exposition, Columbus, Ohio. <https://peer.asee.org/28454>
- 36) Lord, S. M., Berger, E. J., Kellam, N. N., Ingram, E. L., Riley, D. M., Rover, D. T., Salzman, N., & Sweeney, J. D. (2017, June), Talking about a Revolution: Overview of NSF RED Projects, Paper presented at 2017 ASEE Annual Conference & Exposition, Columbus, Ohio. <https://peer.asee.org/28903>
- 37) Kellam, N. N., †Boklage, A., †Coley, B. C., Walther, J., & **Cruz, J. M.** (2017, June), Connected Ways of Knowing: Uncovering the Role of Emotion in Engineering Student Learning, Paper presented at 2017 ASEE Annual Conference & Exposition, Columbus, Ohio. <https://peer.asee.org/27909>
- 38) Lord, S. M., Camacho, M. M., Kellam, N. N., & Williams, J. M. (2017, June), Institutional Mentoring to Incite a Revolution through NSF's RED Program, Paper presented at 2017 ASEE Annual Conference & Exposition, Columbus, Ohio. <https://peer.asee.org/28538>
- 39) McKenna, A. F., Kellam, N. N., Lande, M., Brunhaver, S. R., Jordan, S. S., Bekki, J. M., Carberry, A. R., & London, J. S. (2016, June), *Instigating a Revolution of Additive Innovation: An Educational Ecosystem of Making and Risk Taking* Paper presented at 2016 ASEE Annual Conference & Exposition, New Orleans, Louisiana. 10.18260/p.27315
- 40) Lande, M. & Kellam, N. (2015). Folk Tales: Storytelling within Design Thinking Activities. *Mudd Design Workshop IX: Design Thinking in Design Education*, Claremont, CA.
- 41) \*Kellam, N. N., **Gerow, K. S.**, & Walther, J. (2015, June), Narrative Analysis in Engineering Education Research: Exploring Ways of Constructing Narratives to Have Resonance with the Reader and Critical Research Implications, Paper presented at 2015 ASEE Annual Conference & Exposition, Seattle, Washington. 10.18260/p.24521
- [Mrs. Gerow is a Doctoral Candidate who was funded and mentored by Dr. Kellam]
- 42) Carberry, A., Kellam, N., Brunhaver, S., Sugar, T., & McKenna, A. (2015). An Exploratory Study of Students' Empathy Toward Others Following a Product Archaeology Activity. *The 6<sup>th</sup> Research in Engineering Education Symposium (REES)*, Dublin, Ireland.
- 43) \*Kellam, N., Walther, J., **Wilson, G.**, **Gerow, K.**, & Lande, M. (2015). Uncovering the Role of Emotion in Learning through First- and Second-Year Engineering Students' Narratives. *The 6<sup>th</sup> Research in Engineering Education Symposium (REES)*, Dublin, Ireland.
- [\*Dr. Wilson and Mrs. Gerow were Doctoral Candidates that were mentored and funded by Dr. Kellam at the University of Georgia]
- 44) Pawley, A., Carberry, A., Cardella, M., Carnasciali, M., Daly, Shanna, Gorlewicz, J., Hynes, M., Jordan, S., Kellam, N., Lande, M., Verleger, M., & Yang, D. (2014) The PEER Collaborative: Supporting Engineering Education Research Faculty with Near-

- peer Mentoring Unconference Workshops, *Proceedings of the American Society for Engineering Education (ASEE) Intl. Mtg.*, Indianapolis, IN, Paper #9048.
- 45) **Bird, S.** & Kellam, N. N. (2013). Teaching Journeys of Engineering Faculty: Stories of Transition. *Proceedings of the American Society for Engineering Education (ASEE) Intl. Mtg.*, Atlanta, GA, Paper #7744.
- 46) Sochacka, N., Guyotte, K., Walther, J., Kellam, N. N., & Costantino, T. (2013). Faculty Reflections on a STEAM-Inspired Interdisciplinary Studio Course. *Proceedings of the American Society for Engineering Education (ASEE) Intl. Mtg.*, Atlanta, GA, Paper #6555.
- 47) Walther, J., Sochacka, N., & Kellam, N. (2012). Challenges to ensuring quality in qualitative research: A procedural view. *Proceedings of the Educational Research Methods Division of the American Society for Engineering Education (ASEE) Intl. Mtg.*, San Antonio, TX, Paper #4659.
- 48) Miller, S., Walther, J., & Kellam, N. N. (2012). Social Work and Environmental Engineering: A Transdisciplinary Approach to Educating Reflective Practitioners. *Paper presented at the Council on Social Work Education 58th Annual Program Meeting*, Washington DC.
- 49) Walther, J., Miller, S., & Kellam, N. N. (2012). Exploring the role of empathy in engineering communication through a transdisciplinary dialogue. *Proceedings of the ASEE Intl. Mtg.*, San Antonio, TX.
- 50) Choi, I., Hong, Y., **Gay, M.**, Jensen, L., Park, H., Lee, Y., Gattie, D.K., & Kellam, N.N. (2012). Promoting Second-Year Engineering Students' Epistemic Beliefs and Real-World Problem-Solving Abilities through Case-Based E-Learning Resources. *Proceedings of the ASEE Intl. Mtg.*, San Antonio, TX.
- 51) Walther, J., Sochacka, N., & Kellam, N. N. (2011). Emotional indicators as a way to elicit authentic student reflection in engineering programs. *Proceedings of the Educational Research Methods Division of the American Society for Engineering Education (ASEE) Intl. Mtg.*, Vancouver, BC, Paper #2056.
- 52) Kellam, N. N., Costantino, T., Walther, J., & Sochacka, N. (2011). Uncovering the Role of Emotion in Engineering Education within an Integrated Curricular Experience. *Proceedings of the ASEE Intl. Mtg.*, Vancouver, BC, Paper #2764.
- 53) Walther, J., Kellam, N. N., Costantino, T., & Cramond, B. (2010). Integrative Learning in a Synthesis and Design Studio: A Phenomenological Inquiry. *Proceedings of the ASEE Educational Research Methods sponsored Frontiers in Education Intl. Mtg.*, Washington, DC, Paper #S2F.
- 54) Kellam, N. N., Walther, J., Costantino, T., & Cramond, B. (2010). Integrating the environmental engineering curriculum through crossdisciplinary studios. *Proceedings of the American Society for Engineering Education Intl. Mtg.*, Louisville, KY.
- 55) Choi, I., Hong, Y.C., Kellam, N. N., Gattie, D. K., & **Gay, M.** (2010). Case-based e-learning for solving real-world engineering design problems: Nurturing epistemic growth of engineering students. *Paper presented at the Association for Educational Communications & Technology (AECT)*, Anaheim, CA.
- 56) Walther, J., Kellam, N. N., Radcliffe, D., & **Boonchai, C.** (2009). Integrating students' learning experiences through deliberate reflective practice. *Proceedings of*



- the ASEE Educational Research Methods sponsored Frontiers in Education Intl. Mtg.*, Austin, TX, Paper #T3G.
- 57) Kellam, N. N., Walther, J., & **Babcock, A.** (2009). Complex Systems: What Are They and Why Should We Care? *Proceedings of the Educational Research Methods Division of the ASEE Intl. Mtg.*, Austin, TX, Paper #AC2009-2125.
  - 58) Kellam, N. N., Walther, J., & Gattie, D. K. (2009). An Adaptive Response Model to Describe Emergent Engineering Education System Properties. *Proceedings of the Research in Engineering Education Symposium Intl. Mtg.*, Cairns, Australia, Paper #69.
  - 59) Walther, J., Kellam, N. N., & Radcliffe, D. (2009). Influences of the Cohort on Engineering Students' Competence Formation. *Proceedings of the Research in Engineering Education Symposium Intl. Mtg.*, Cairns, Australia, Paper #38.
  - 60) Costantino, T. E., Kellam, N. N., & Cramond, B. L. (2009). What can engineers and artists learn from each other about creativity: a preliminary study. *The American Educational Research Association*, San Diego, CA.
  - 61) Kellam, N. N. & Gattie, D. K. (2008). The Engineering Learning Environment and its Level of Complexity in an American Mechanical Engineering Program. *Proceedings of the Research in Engineering Education Symposium Intl. Mtg.*, Davos, Switzerland.
  - 62) Gattie, D. K. & Kellam, N. N. (2008). Engineering Education as a Complex System. *Proceedings of the Complexity Science and Educational Research Conference.*
  - 63) Kellam, N. N., **Babcock, A.**, & Gattie, D. K. (2008). The Engineering Learning Environment: A Proposed Model. *Proceedings of the American Society for Engineering Education Intl. Mtg.*, Pittsburgh, PA, Paper #2008-1296.
  - 64) Mativo, J. & Kellam, N. N. (2008). Responsiveness of Engineering Curricula to Cultural and Societal Changes. *Proceedings of the American Society for Engineering Education Intl. Mtg.*, Pittsburgh, PA, Paper #2008-1129.
  - 65) Kellam, N. N. & Gattie, D. K. (2008). Developing a Systems Understanding of Education through Ecological Concepts. *Proceedings of the Complexity Science and Educational Research Conference*, Athens, GA.
  - 66) Kellam, N. N., Gattie, D. K., & Kazanci, C. (2007). A Network Model of Distributed and Centralized Systems of Students. *Proceedings of the ASEE Educational Research Methods sponsored Frontiers in Education Intl. Mtg.*, Milwaukee, WI, Paper #F4G.
  - 67) Kellam, N. N., Gattie, D. K., & Peters, W. H. (2007). Niche Construction as an Ecological Analog for Improving Educational Systems. *Proceedings of the Complexity Science and Educational Research Conference*, Athens, GA, pp. 145-155.
  - 68) Kellam, N. N., Mann, L., Addison, V., Maher, M. A., Radcliffe, D., & Peters, W. H. (2006). The Faculty Perspective on the State of Complex Systems in American and Australian Mechanical Engineering Programs. *Proceedings of the Educational Research Methods Division of the ASEE Intl. Mtg.*, Chicago, IL, Paper #2006-103.
  - 69) Kellam, N. N., Mann, L., Addison, V., Maher, M., Radcliffe, D., & Peters, W. H. (2006). The Student Perspective on the State of Complex Systems in Australian and American Mechanical Engineering Programs. *Proceedings of the ASEE Southeastern Section Annual Conference*, Tuscaloosa, AL, Paper #P2006011CRA.

- 70) Kellam (Craig), N. N., Addison, V., Maher, M., & Peters, W. H. (2005). Integrating Complex Systems Study into the Freshman Mechanical Engineering Experience. *Proceedings of the American Society for Engineering Education Intl. Mtg.*, Paper #22035.
- 71) Kellam, N. N., Russell, J. A., Maher, M., & Peters, W. H. (2005). Benchmarking the Integration of Complex Systems Study in Southeastern Mechanical Engineering Programs. *Proceedings of the American Society for Engineering Education Southeastern Section Annual Conference*, Paper #P2005182CRA.
- 72) Kellam (Craig), N. N., Thompson, N. S., Donath, L., & Matthews, M. (2005). Incorporating Complexity into Undergraduate Engineering Development through the Research Communications Studio. *Proceedings of the American Society for Engineering Education Conference Intl. Mtg.*, Paper #22009.
- 73) Russell, J. A., Maher, M. A., Kellam (Craig), N. N., & Peters, W. H. (2004). Embracing Complexity in Engineering Education at Southeastern Universities. *Proceedings of the ASEE Southeastern Section Annual Conference*, Paper #P2004103.
- 74) Kellam (Craig), N. N., Maher, M. A., & Peters, W. H. (2003). Recipe for Complexity: A Freshman Learning Experience. *Proceedings of the American Society for Engineering Education Conference Intl. Mtg.*, Paper #18408.
- 75) Kellam (Craig), N. N., Addison, V., Maher, M., & Peters, W. H. (2005). Benchmarking the Integration of Complex Systems Study in American and Australian Mechanical Engineering Programs. *Proceedings of the Global Colloquium of Engineering Education Intl. Mtg.*, Sidney, Australia.
- 76) Kellam (Craig), N. N., Thompson, N. S., & Donath, L. (2005). Incorporating Complexity into Undergraduate Engineering Development through the Research Communications Studio. *Paper presented at the Global Colloquium of Engineering Education Intl. Mtg.*, Sidney, Australia.

#### **4. Summary of Professional Activities and Service:**

##### **a. Editor**

Deputy Editor for *Journal of Engineering Education*, 2019-present.  
 Senior Associate Editor for *Journal of Engineering Education*, 2018-19.  
 Associate Editor for *Journal of Engineering Education*, 2016-18.  
 Complexity Science in Educational Research Conference Proceedings, 2008.

##### **b. Peer-Review Service**

Journal of Engineering Education  
 European Journal of Engineering Education  
 International Journal of Engineering Education  
 Ecological Modelling  
 Engineering Studies  
 Complicity  
 Narrative Inquiry

##### **c. Conference Proceeding Refereeing**

Frontiers in Education  
American Society of Engineering Education  
Research in Engineering Education Symposium

**d. Service to Professional Society**

ASEE, Co-Chair of Committee on Scholarly Publications, 2021-present.  
ASEE, Ex Officio Member of the ASEE Finance Committee, 2022-present.  
ASEE, Educational Research and Methods, Director, 2019-2021.  
Member, ASEE Committee on Diversity, Equity and Inclusion, 2019-2022.  
ASEE, Educational Research and Methods, Apprentice Faculty Grants Committee  
Chair, 2015-16.  
ASEE, Educational Research and Methods, Apprentice Faculty Grants Committee  
Co-Chair, with Samantha Brunhaver, 2016-17.  
Science as Art Exhibit Judge, Clemson University, 2010, 2011, 2012.

**e. Moderator**

Frontiers in Education  
American Society of Engineering Education  
Research in Engineering Education Symposium

**f. Proposal Review Service for National Science Foundation**

Served regularly on review panels since 2007.

**g. Faculty Mentor**

American Society for Engineering Education Educational Research Methods  
Division Apprentice Faculty Grant Mentor ERM Faculty Fellow Mentor (2009,  
2012, 2019)

**h. Engineering Schools-level Committees: 3**

2018-2020 Ira A. Fulton Schools of Engineering Dean's Faculty Advisory Council  
(DFAC)

2017-19 Ira A. Fulton Schools of Engineering Research Committee

2015-17 Ira A. Fulton Schools of Engineering Dean's Executive Committee

**i. School and Program Committees**

2020-present TPS EGR Industrial Advisory Board, Co-Chair of Diversity and Inclusion  
sub-committee

2019-20 EESD Graduate Program Chair

2019-20 TPS Graduate Committee Chair

2018-19 Member of TPS Director Search Committee

2017-18 Member of TPS Personnel Committee

2017-20 Member of EESD Recruitment Committee

- 2016-21 Member of EESD Executive Committee
- 2015-16 Chair of Faculty Search Committee for Engineering Education Faculty Position
- 2014-15 Co-Chair of Faculty Search Committee for Design Education and Learning Systems Position

**j. Other Service: 9**

- 2023 Advisory Board Member for Chemical Engineering Department at University of New Mexico
- 2019-present Advisory Board Member for grant proposal: CCE STEM Phenomenography of Engineering Ethics.
- 2017 Expert/ Advisory Board Member for grant proposal: Challenges and opportunities of ontological diversity in engineering education in relation to the ability to deal with (wicked) sustainability problems, Submitted to Swedish National Science Foundation, PI: Magdalena Svanström.
- 2016 Expert/ Advisory Board Member for grant proposal: Scaffolding Engineering Students' Ability to Address Wicked Problems: Exploring Cognitive, Metacognitive and Affective Strategies, Submitted to Swedish National Science Foundation, PI: Magdalena Svanström.
- 2013-14 Creativity Certificate Advisory Board Member
- 2013-14 Lilly Teaching Fellows Mentor
- 2012-13 Lilly Teaching Fellows Mentor
- 2010-present Ideas for Creative Explorations (ICE) Advisory Board Member
- 2009-10 Creative Strategies Faculty Development Workshop Series

**k. University-level Committees**

- 2014 University of Georgia Gender Equity Committee

**l. College and Department-level Committees at UGA**

- 2013-14 College of Engineering Graduate Advisory Committee
- 2013-14 College of Engineering Curriculum Committee
- 2012-14 Mechanical Engineering Curriculum Committee, Coordinator for the Design and Professional Spines
- 2012-13 College of Engineering Dean Search Committee
- 2010-present ABET Accreditation Faculty Committee, Faculty Liaison for ABET and engineering education questions or concerns
- 2010 Center for Undergraduate Research Opportunities (CURO)-Engineering committee member

2009	Mechanical Engineering Degree Proposal Committee, Chair to the committee to prepare documentation for the Bachelors of Science degree in Mechanical Engineering for the Board of Regents
2009	Agricultural Engineering Curriculum Committee
2008	Engineering Education Faculty Search Committee
2007, 2008	Environmental Engineering Faculty Search Committees
2006-13	Environmental Engineering Curriculum Committee

## 5. Summary of Research Support:

### Pending External Funding

2024-29 Collaborative Research: Learning from Engineering Faculty who have ADHD: Transforming their Voices into Action, Nadia Kellam (PI), 100%, \$736,809 [Collaborative with Cindy Finelli at University of Michigan]

### Total Approved External Funding

2023-26 Collaborative: Increasing the Effectiveness of Justice, Equity, Diversity, and Inclusion-Focused Institutional Change Teams through a Community of Transformation, Nadia Kellam (PI), 100%, \$587,569.

2021-24 IRES Track 1: Sensor Information Processing and Machine Learning for Wearable Devices, Gregory Raupp (PI), Nadia Kellam (co-PI), Erica Forzani (co-PI), and Andreas Spanias (co-PI), 25%, \$299,997.

2020-21 REU Supplement: Research Initiation: Exploring Epistemologies where Engineering meets Art, Suren Jayasuriya (PI), Nadia Kellam (co-PI), 50%, \$12,800.

2019-20 EAGER: Collaborative Research: PaiRED: Partnering Across Insider-views of RED, Nadia Kellam (PI), 100%, \$99,546.

2017-19 EAGER: Collaborative Research: Impact of the Emerging Engineering Education Research and Innovation Community, Ann McKenna (PI), Nadia Kellam (co-PI, note: I joined this grant in 2018), \$75,000.

2018-20 Research Initiation: Exploring Epistemologies where Engineering Meets Art, National Science Foundation, Suren Jayasuriya (PI), Nadia Kellam (co-PI), 50%, \$197,689.

2017-20 The untapped community: Community colleges as an opportunity to broaden participation in engineering, National Science Foundation, Brooke Coley (PI), Nadia Kellam (co-PI), 50%, \$399,388.

2016-19 Value through the Voices: Exploring Making and its Impact on Engineering Identity Formation of Underrepresented Groups, National Science Foundation, Nadia Kellam (PI), Brooke Coley (co-PI), 50%, \$599,905.

2015-20 IUSE/PFE: RED: Additive Innovation: An Educational Ecosystem of Making and Risk Taking, National Science Foundation, \*Ann McKenna (PI), Nadia Kellam (co-PI), Micah Lande (co-PI), Samantha Brunhaver (co-PI), Shawn Jordan (co-PI), Jennifer Bekki, Adam Carberry, & Jeremi London, 14%, \$1,993,593.

2015-16 “A Long Way Coming”—Understanding Engineering Educators’ Transformations to Student-Centered Teaching, National Science Foundation, Nadia Kellam, PI, 100%, \$183,564 at ASU (original award at UGA: \$400,000).

[This grant was initially awarded at UGA in 2013 and was transferred to ASU.]

2015-16 Connected Ways of Knowing: Uncovering the Role of Emotion in Engineering Student Learning, National Science Foundation, \*Nadia Kellam, PI, 100%, \$138,783 at ASU (original award at UGA: \$300,000).

[This grant was initially awarded at UGA in 2012 and was transferred to ASU.]

2015-16 University of Washington, Consortium to promote reflection in engineering education, PI, \$3,300.

2013-14 “A Long Way Coming”—Understanding Engineering Educators’ Transformations to Student-Centered Teaching, National Science Foundation, Nadia Kellam, Joachim Walther, Kathleen deMarrais, Stephan Durham, \$400,000.

[This grant was initially awarded at UGA in 2014 and was transferred to ASU.]

2012-14\* Connected Ways of Knowing: Uncovering the Role of Emotion in Engineering Student Learning, National Science Foundation, Nadia Kellam, Joachim Walther, Tracie Costantino, \$300,000.

[This grant was initially awarded at UGA in 2012 and was transferred to ASU.]

2011-12 Establishing a PEER Collaborative Network for Engineering Education Researchers, National Science Foundation, \*Nadia Kellam, \$50,000.

2010-13 Making Connections: A Theory of Synergistic Learning in Engineering, National Science Foundation, \*Joachim Walther, Nadia Kellam, \$400,000.

2009-12 Synthesis of Engineering and Art for Innovative Education, National Science Foundation, \*Nadia Kellam, Tracie Costantino, Bonnie Cramond, \$149,999.

2009-12 Case-Based E-Learning for Solving Real-World Engineering Design Problems: Nurturing Epistemic Growth for Second Year College Students, National Science Foundation, \*Ikseon Choi, Nadia Kellam, \$150,000.

#### **a. Total Internal Funding**

2019-21 Collaborative Seed Grant, Herberger Institute for Design and the Arts and the Mary Lou Fulton Teachers College, “Foucauldian Care of the Self in an Integrated STEM and the Arts Program for LGBTQIA+ Individuals” Suren Jayasuriya (PI), Nadia Kellam (co-PI), and Mirka Koro (co-PI), \$11,571.

2013-14 Building Creative Confidence in Mechanical Engineering Students through the IM Creative Studio, UGA Office of STEM, PI, \$9,000.

2013-14 3D Printing and Maker Learning Communities in the First Year Mechanical Engineering Program: Encouraging Retention and Professional Identity Development, Innovative Instruction Faculty Grant, UGA, PI, \$5,000.

2011-12 Reflection as a way of integrating student learning across Science, Technology, Engineering and Math, UGA Office of STEM, \$9,000.

2011-12 Exploring multi-modal methodologies to investigate synergistic learning in engineering and art, ICE Project Development Grants, Ideas for Creative Exploration (UGA), co-PI, \$500.

- 2010-11 STEAM: Integrating the Arts into STEM through a Stop-motion Animation Lesson, UGA Office of STEM, PI, \$5,256.
- 2010 Exploring student development in the ‘third space’ between art and engineering, ICE Project Development Grants, Ideas for Creative Exploration (UGA), co-PI, \$2,500.
- 2009-10 Preparing Engineering Students to be Global Citizens with Case-Based E-Learning Technology, UGA Learning Technology Grant, PI, \$30,000.
- 2008-09 Engineering Mechanics in Performing Arts: Linking Engineering and Music Students, Lowry H. Gillespie, Jr. Engineering Curriculum Enhancement Award, co-PI, \$2,500.
- 2008-09 Lilly Teaching Fellows Grant, UGA Center for Teaching and Learning, PI, \$2,000.
- 2008-09 Integrating Creativity into Engineering Education through a Cross-Disciplinary Design Course, UGA Office of STEM, PI, \$8,000.
- 2008-09 Understanding Why They Leave, UGA Office of STEM, co-PI, \$8,000.
- 2006-07 Systems Based Engineering Education: Exploring Distributed Cognition, UGA OVPR, Junior Faculty Research Grant, PI, \$1,600

**b. Invited Talks: 8**

- 2023 Kellam, N. Equity-Centered Engineering Education: Fostering Inclusion, Empowerment, and Neurodiversity, University of South Carolina, September 22, 2023.
- 2023 Kellam, N. Equity-Centered Engineering Education: Fostering Inclusion, Empowerment, and Neurodiversity, University of South Carolina, September 21, 2023.
- 2023 Kellam, N. Bridging Hearts and Minds: Unveiling the Revolutionary Power of Arts in Engineering Education, Virginia Tech, September 1, 2023.
- 2018 Kellam, N. & Coley, B. Using the power of story to understand and promote inclusive engineering education, University of Hawaii, March 7, 2018.
- 2014 Kellam, N. Keynote address: Taking Risks and Transcending Disciplinary Boundaries, Athens, GA, Interdisciplinary Research Conference.
- 2014 Kellam, N. N. TEDxUGA Presentation: Cutting Away to a Fulfilling Life, Invited TEDxUGA Speaker, March 2014.
- 2013 Kellam, N. Transitioning to Active Learning Strategies, Mesa, AZ, Arizona State University.
- 2013 Kellam, N. N. Making connections: An engineering education research project on synergistic learning, how findings from this project are informing practice, and what this type of research means for you, Invited Seminar Speaker, University of South Carolina, Columbia, SC.
- 2013 Kellam, N. N. & Walther, J. Exploring Connected Ways of Knowing and Uncovering the Power of Connections to Construct our Professional Identities, Invited Seminar Speaker, Virginia Polytechnic University, Blacksburg, VA.

- 2009 Kellam, N. N. & Walther, J. The Pathways of an Engineering Education Project from Pilot Implementations to Theory Building. Invited Seminar at the Engineering Education Graduate Seminar Series, Virginia Tech Department of Engineering Education and Clemson University Department of Engineering Science Education.
- 2009 Kellam, N. N. Emergence, Adaptability, and Open Boundaries: Complex Systems as a Unifying Perspective for Engineering Education. Invited Seminar to the School of Engineering at Purdue University, West Lafayette, IN.

### c. Conference Activity

#### 1. Conferences Organized: 6

- 2016 Camacho, M., Kellam, N., & Lord, S. (2016). Online workshop with over 300 attendees and available online. Proposing a revolution – Lessons learned in designing RED projects. Assisted in grant writing for NSF workshop funds, Facilitator for pre-conference workshop. Led the session, “What is Revolutionary and Not-so-Revolutionary? Hypothetical Cases.
- 2015 PEER Collaborative Network Conference for Early Career Tenure-Track Faculty with Promotion and Tenure Consideration based on Engineering Education Research, Seattle, WA.
- 2014 PEER Collaborative Network Conference for Early Career Tenure-Track Faculty with Promotion and Tenure Consideration based on Engineering Education Research, West Lafayette, IN.
- 2013 PEER Collaborative Network Conference for Early Career Tenure-Track Faculty with Promotion and Tenure Consideration based on Engineering Education Research, Atlanta, GA.
- 2011 PEER Collaborative Network Conference for Early Career Tenure-Track Faculty with Promotion and Tenure Consideration based on Engineering Education Research, Athens, GA.
- 2008 5th International Complexity Science and Educational Research (CSER) conference.

#### 2. Panels: 8

- 2017 Spring 2017 TPS Faculty Mentorships series, Panel on Publishing.
- 2017 Interdisciplinarity! Panel presentation/ talk show, Tempe, Arizona, Sponsored by the LLT Program Committee.
- 2016 Interdisciplinarity! Panel presentation/ talk show, Tempe, Arizona, Sponsored by the LLT Program Committee.



- 2014 Kellam, N. N. How to be a Successful Professional in Academe & Industry, Panel member at the American Society for Engineering Education Annual Conference and Exposition, Indianapolis, IN.
- 2011 Kellam, N. N. Student Constituent Committee/ New Engineering Educators Roundtable Panel, Panel member at the American Society for Engineering Education Annual Conference and Exposition, Vancouver, BC.
- 2009 Kellam, N. N. Engineering Education at the University of Georgia. Presentation to the Mumbai Sheriff's Education Delegation Visit, Athens, GA.
- 2007 Kellam, N. N., Moore, T., Varnado, T. Castillo, M., & Dischino, M. Doctoral Student Transitioning to University Professor. Invited Panelist for the National Center for Engineering and Technology Education, Urbana-Champaign, IL.
- 2007 Kellam, N. N. ...To Life Assignments. Invited Presentation in the Have You Tried...? The Sequel Special Session, Frontiers in Education, FIE Special Session, Milwaukee, WI.

### 3. Summer Schools/ Workshops/ Symposia: 17

- 2023 Finelli, S., Kellam N., Fowler, R. & Zaghi, A.E. Sharing the Stories of Engineering Faculty with ADHD to Create More Inclusive Academic Environments, *American Society for Engineering Education*.
- 2023 Tsugawa, M., Rodriguez-Simmonds, H.E., Sorg, T., Maul, S., Williams, T.V., Pawley, A.L. & Kellam, N. Panel: Neurodivergent Graduate Students and Faculty Members' Experiences of (In)Accessibility in Engineering Education Through a Domains of Power Lens, *American Society for Engineering Education*.
- 2022 Kellam, N. & Kovacs, H. Arts-based Approaches to Eliciting and Expressing Emotions in Engineering Education. *Emotions in Engineering Education Symposium, Emotions in Engineering Education Symposium*, Umeå, Sweden.
- 2022 Kellam, N. & Direito, I. Imagining the Future of Emotions in Engineering Education Funding, *Emotions in Engineering Education Symposium, Emotions in Engineering Education Symposium*, Umeå, Sweden.
- 2020 Kellam, N., Svihla, V., Davis, S., Cross, K., Pawley, A., & Riley, D. Using power, privilege, and intersectionality as lenses to understand our experiences and begin to disrupt and dismantle oppressive structures within academia. *American Society for Engineering Education*.
- 2020 Svihla, V., Davis, S., Kellam, N., & Desiderio, J. *Change agency and intersectionality: Understanding and dismantling structural sexism*. Regional Discussion on Sexual Assault and Sexual Harassment at America's Colleges, Universities and Service Academies: Achieving Cultural Change Through Data and An Evaluation Mindset, Albuquerque, NM.
- 2020 Kellam, N., Davis, S., & Svihla, V. Using power, privilege, and intersectionality as lenses to understand our experiences and begin to disrupt and dismantle oppressive structures within academia. *REDCON monthly call*.
- 2019 Co-led Workshop at NSF RED PI Meeting in 2019 with Vanessa Svihla and Susannah Davis, "Tenurism, Rankism, Engineeringism, Ableism, Racism,

- Sexism, oh my! Building awareness of power and privilege on intersectional, interdisciplinary, inclusive teams,” Washington, DC.
- 2017 Kellam, N. & Coley, B. (2017). Three day workshop to 80 engineering faculty from Ho Chi Minh University of Technology, Inclusive Maker Pedagogies and the Power of Story for Innovative Engineering Education, Can Tho, Vietnam.
- 2016 Walter, M.C., Kellam, N., & Lord, S. RED Workshop to Plan for Webinar, University of San Diego, San Diego, CA.
- 2015 Bekki, J. & Kellam, N. (2015). Workshop to Department of Biological and Chemical Engineering Faculty, Additive Innovation: An Educational Ecosystem of Making and Risk Taking, University of New Mexico, Albuquerque.
- 2015 Kellam, N. & McKenna, A. (2015). RED Teaching and Learning Nexus Workshop 1: Seeding a Revolution, December 11, 2015, ASU Polytechnic School.
- 2012 Walther, J., Sochacka, N., & Kellam, N. Qualifying Qualitative Research Quality (the Q3 Project): A Conversation for Engineering Education Researchers Workshop presented at the 2012 Australasian Association for Engineering Education (AAEE) Annual Conference. Melbourne, Australia.
- 2009 UGA Academic Affairs Faculty Symposium, The Challenged University: Communication and Collaboration in Good and Bad Times, Helen, GA.
- 2009 University System of Georgia Science, Technology, Engineering, and Math (STEM) Institute, Stone Mountain, GA.
- 2008 UGA Faculty Symposia, Enhancing Faculty Impact Through Engagement and Renewal, Dillard, GA.
- 2007 UGA Academic Affairs Faculty Symposium, Engancing the Undergraduate Experience through Discovery, Engagement, Transformation, and Reflection, Helen, GA.
- 2007 National Effective Teaching Institute, Honolulu, HI.
- 2006 UGA Academy of the Environment Symposium, October 23-24, Athens, GA.

#### **4. Campus and Departmental Talks: 7**

- 2017 The Polytechnic School: Identifying strengths and building capacity, August 11, 2017.
- 2016 The Role of Emotions in Student Learning, Evidence-based teaching in STEM seminar and workshop, November 4, 2016.
- 2012 Kellam, N. N., & Walther, J. Interdisciplinary Research Projects: What Are They and How Do They Emerge? CURO Gateway Seminar: Introduction to Research in the Arts. UGA CURO, Athens, GA.
- 2009 Costantino, T. C., Kellam, N. N., & Cramond, B. The Impacts of an Interdisciplinary Engineering and Art Design Studio on Creativity. Invited Keynote, Foundations for Art Theory and Education ThinkTank4, Athens, GA.

- 2009 Kellam, N. N. (2009). Messy Problems—Why Engineering Needs the Humanities. Invited Keynote, High School Science Fair, Athens, GA.
- 2009 Kellam, N. N. & Walther, J. Engineering education research: What is it and why should we care? Invited Presentation at the Georgia Society of Professional Engineers, Northeast Chapter Meeting, Athens, GA.
- 2008 Kellam, N. N. (2008). Integrating Complex Systems in Engineering Education. Seminar to UGA Graduate Students, Athens, GA.
- 5. Conference Presentations (without accompanying proceedings): 20**
- 2022 Davis, S.C., Kellam, N., & Svihla, V. (4/2022). Merged theoretical frameworks for exploring lived experiences of senior faculty on equity-oriented change projects. AERA Annual Meeting, San Diego, CA.
- 2020 **Naufel, L. R.**, Kellam, N. & Bekki, J. M. Systems Dynamics Approach to Analyzing the Complexities of Policy and Academic Interventions Within Educational Systems [Roundtable Session]. AERA Annual Meeting San Francisco, CA <http://tinyurl.com/rrdopzg> (Conference Canceled)
- 2019 **McBurnett, L.**, Bekki, J., & Kellam, N. (2019). Complex Systems Approach for Interpreting & Analyzing Educational System Dynamics. In American Educational Research Association Annual Meeting.
- 2017 †Coley, B., †Boklage, A., & Kellam, N. (2017). Narrative smoothing and constructing in the wild: Navigating the space of co-constructing narratives for analysis. In American Educational Research Association Annual Meeting, San Antonio, TX.
- 2016 **Cruz, J.** & Kellam, N. (2016). “Doing” Narratology: Drawing on Literary Theory for Structural Analysis of Narratives. Paper Session: Exploring Methodological Issues in Narrative Research, American Educational Research Association Annual Meeting, Washington, DC.
- 2014 Steacy, C., Walther, J., Costantino, T., & Kellam, N. “Where do the words come from? Discourse analysis and the neglected subject.” Tenth International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign. May 22-24, 2014. Conference Presentation.
- 2014 Guyotte, K., Walther, J., Kellam, N., & Costantino, T. “Residing In-Between: A Visual-Verbal Narrative Inquiry into Student Experiences in a Transdisciplinary Design Studio.” Tenth International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign. May 22-24, 2014. Conference Presentation.
- 2012 Costantino, T., Guyotte, K., Kellam, N., & Walther, J. “Seeing Experiences of Interdisciplinarity through Student Artwork.” Eighth International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign. May 16, 2012. Conference Presentation.
- 2012 Walther, J., Sochacka, N., & Kellam, N. N. A Quality Framework for Interpretive Engineering Education Research. Poster presented at the National Science Foundation - Engineering Education Awardees Conference, Washington, DC.
- 2012 Kellam, N. N., Walther, J., **Bird, S.**, Costantino, T., & **Guyotte, K.** Making Connections: A Theory of Synergistic Learning in Engineering. Poster

- presented at the National Science Foundation - Engineering Education Awardees Conference, Washington, DC.
- 2012 Walther, J., Sochacka, N., **Reyes, E. M.**, & Kellam, N. N. Emotional Indicators - Eliciting Authentic Student Reflection in Engineering Programs. Presentation to the 2012 Regional STEM Institute of Teaching and Learning Conference. Athens, GA.
- 2010 Crowder, I., Cramond, B., Costantino, T., & Kellam, N. N. Synthesis of creativity, art, and engineering: An interdisciplinary journey, Presented at the National Association of Gifted Children annual conference, Atlanta, GA.
- 2010 Choi, I., Hong, Y.-C., Kellam, N. N., Gattie, D. K., & **Gay, M.** A Case-Based E-Learning Environment for Solving Real-World Engineering Design Problems. Design & Development Showcase presented at the annual conference of the Association for Educational Communications & Technology (AECT), Anaheim, CA.
- 2010 Choi, I., Hong, Y.-C., Kellam, N. N., Gattie, D. K., & **Gay, M.** Ongoing design of a case-based e-learning system promoting engineering students' personal epistemology and real-world problem solving abilities. Research/ Technical Showcase presented at the E-Learn 2010 - World Conference on E-Learning in Corporate, Government, Healthcare & Higher Education, Orlando, FL.
- 2010 Kellam, N. N., Costantino, T., Cramond, B., Walther, J. & **Crowder, I.** Synthesis of Engineering and Art for Innovative Education: Creating an Interdisciplinary Curriculum, American Association for the Advancement of Curriculum Studies Conference, Denver, CO.
- 2010 Costantino, T., Kellam, N. N., Cramond, B., Walther, J., & **Crowder, I.** The synthesis of engineering and art for innovative education: Preliminary findings. Peer-reviewed paper presented at the American Educational Research Association, Denver, CO.
- 2005 Addison, V., Kellam (Craig), N. N., Wilson, D. K., & Peters, W. H. Using the Built Environment to Alter Human Energy Expenditure. Presented at the International Society for Behavioral Nutrition and Physical Activity 4th Annual Conference, Amsterdam, The Netherlands.
- 2004 Russell, J. A., Kirtland, K., Wilson, D. K., Kellam (Craig), N. N., Addison, V., & Peters, W. H. A Comparison of Slowly-Evolving Versus Rapidly-Evolving Cities on Prevalence of Obesity and Physical Activity. Presented at the International Society for Behavioral Nutrition and Physical Activity 3rd Annual Conference, Washington, DC.
- 2003 Kellam (Craig), N. N. A 'Picture Show' of Energy Flow in South Carolina. Poster presented at the Green Engineering: Defining the Principles Conference, Sandestin, FL.
- 2003 Peters, W. H., Russell, J. A., & Kellam (Craig), N. N. A Discussion of the First Principles for Green Engineering. Presented at the Green Engineering: Defining the Principles Conference, Sandestin, FL.

## 6. Summary of Teaching Support

**a. Awards and Honors: 6**

- 2022 Top 5% Teaching Award, Ira A. Fulton Schools of Engineering  
2020 Helen Plants Award, “The POWER Workshop: Building Awareness of Power and Privilege on Intersectional Teams”, awarded by the ASEE/IEEE Frontiers in Education Conference Awards Chair  
2017-18 RED Poly Faculty Fellow  
2013 Frontiers of Engineering Education Faculty Member, National Academy of Engineering.  
2007 Center for the Advancement of Scholarship on Engineering Faculty Fellow, National Academy of Engineering.  
2007-09 Lilly Teaching Fellow, University of Georgia, Center for Teaching and Learning.

**b. Design Courses Taught at ASU: 3**

- EGR 202: User-Inspired Design Project II (Sp15, Sp16)  
EGR 201: User-Inspired Design Project I (F14, Sp21, Sp22)  
Mechanical Engineering Design Studio (UGA, Sp14, 3 sections)  
Synthesis and Design Studio: Systematic ways of understanding and working in complex socio-technical systems, Environmental Engineering, 1<sup>st</sup> and 2<sup>nd</sup> year students, 6 contact hours per week (UGA, Sp09, Sp11, Sp13)  
Synthesis and Design Studio Seminar (UGA, F10, F11, F12)  
Synthesis and Design Studio: Engineers, technology and the social – exploring relationships in socio-technical systems, Environmental Engineering, 1st and 2nd year students, 6 contact hours per week (UGA, Sp10, Sp12)  
Interdisciplinary Synthesis and Design Studio: Environmental Engineering and Studio Art, 6 contact hours per week (UGA, F09)  
Senior Design, Agricultural Engineering (UGA, Sp08)

**c. Engineering Fundamental Courses Taught at ASU: 18**

- EGR217: Engineering Mechanics (F15, Sp16, F16, F17, F18, F20, F21, F22)  
MET230/300: Materials Science (F15)  
Principles of Systems Engineering (UGA, F11, F12)  
Dynamics (UGA, Sp07, Sp08, Sp09)  
Computational Engineering Methods, 1<sup>st</sup> year students (UGA, F07 2 sections, F08 2 sections)

**d. Study Abroad: 1**

- Faculty mentor, Nepal--Grassroots Innovation for Sustainable Development, EGR 494, 12 students from ASU and 5 students from Institute of Engineering in Kathmandu, Nepal.

**e. Other Courses: 2**

- ASU 101 (F16, F22)

First Year Odyssey Seminar, STEAM: Integrating the Arts into STEM (F11)

**f. Graduate Courses: 14**

EGR565: Qualitative Methods for Engineering Education Research (F16, F17, F18, F19, F20, F22)

EGR535: Engineering Entrepreneurship and Innovation (Sp17, Sp18, Sp19, Sp20, Sp21)

EGR671: Application of Qualitative Methods for Engineering Education Research (Sp17)

Introduction to Engineering Education Research (UGA, F11)

Theories of Learning and Human Development in Contemporary Engineering Education Research (UGA, Sp12)

**7. Supervision of Students**

**a. Postdoctoral Advisor at ASU: 4**

- Jeanne Sanders, PhD (Spring 2022)
- Audrey Boklage, PhD. (Fall 2015 to Summer 2018, Research Professor at UT Austin, NSF CAREER awardee)
- Brooke Coley, PhD. (Fall 2015 to Summer 2017, Assistant Professor at ASU)
- Anna Cirell (Fall 2017 to Summer 2018)

**b. Doctoral Thesis Advisor: 6**

- Jemal Halkiyo, EESD, Fall 2020 to present
- Madeleine Jennings, EESD, co-advisor, Fall 2019 to Fall 2023, graduating.
- Bala Sundaram, EESD, Fall 2019 to Spring 2023, graduated, currently faculty at ASU.
- Michael Sheppard, EESD, Fall 2017 to Fall 2020, graduated, currently faculty at Colorado School of Mines
- Lauren Naufel (McBurnett), Systems Engineering, co-advisor, 2018 to 2020, graduated, entrepreneur, Primer.
- Sandy Bird, Department of Biological and Agricultural Engineering, 2012 to 2014, ABD.

**c. Doctoral Thesis Committee: 11**

- Susan Sajadi, PhD, Engineering Education Systems and Design, Ira A. Fulton Schools of Engineering, Graduated in 2022, Faculty at Virginia Tech.
- Eunsil Lee, PhD, Engineering Education Systems and Design, Ira A. Fulton Schools of Engineering, Graduated in 2020, Faculty at University of Buffalo.
- Allison Ellsworth, PhD, Interdisciplinary Humanities and Communication, College of Integrative Sciences and Arts, Graduated in May, 2020.
- Kelly Guyotte, PhD, Department of Art Education, Lamar Dodd School of Art, Graduated in 2014, Assistant Professor at University of Alabama

- Gregory Wilson, PhD, Learning, Design, and Technology, College of Education, Graduated in 2015.
- Larry Brumback, Department of Mathematics Education
- Eliana Rozo Meves, Department of Biological and Agricultural Engineering
- Melissa Gay, Department of Educational Psychology and Instructional Technology
- Isabelle Crowder, Department of Educational Psychology and Instructional Technology, College of Education, Graduated in 2011
- H. Jeff Turk, College of Agricultural and Environmental Sciences, Biological and Agricultural Engineering Department, Graduated in 2013
- NaJuana Lee, School of Art, Art Education, Graduated in 2011

**d. Masters Thesis Committee: 1**

- Tyler Niles, College of Agricultural and Environmental Sciences, Biological and Agricultural Engineering Department

**e. Doctoral Student Mentoring at ASU: 7**

Student Name	Student Program	Student Degree	Mentorship Role (e.g., committee member, dissertation chair, research supervisor, etc.)	Time Period	Graduation (or anticipated graduation) Date
Earl Lee	Justice Studies	PhD	Committee member	2023-present	Spring 2024
Susan Sajadi	EESD	PhD	Research supervisor	2019-2020	Spring 2022
			Committee member	2020-2022	
Yue Liu	EESD	PhD	Research supervisor in 2019-2020	2019-2020	2024
Eunsil Lee	EESD	PhD	Research supervisor	2017-2018	Summer 2020
			Committee member	2018-2020	
Noa Bruhis	School for the Future of Innovation in Society	PhD	Research supervisor (provided research assistantship, with Suren Jayasuria)	2018-2019	2021
Samantha Cruz	Counseling Psychology	PhD	Research supervisor (provided research assistantship, with Brooke Coley)	2018-2019	2021
Christina Lam	Counseling Psychology	PhD	Research supervisor (provided research assistantship, with Brooke Coley)	2018-2019	2021
Joshua Cruz	Learning,	PhD	Research Supervisor	Summer	Spring 2018

	Literacies and Technologies			2015 – Summer 2018	
Gregory Wilson	Learning, Design, and Technology, College of Education	PhD	Research supervisor (provided research assistantship)	2013-14	Summer, 2015
Karen Gerow	School of Art, Art Education Program	PhD	Research supervisor (provided research assistantship)	2012-13	N/A
Chad Steacy	Department of Geography	PhD	Research supervisor (provided research assistantship)	2013-14	Spring, 2018
Todd Kelley	College of Education, Technology Education	PhD	Research supervisor	2006-08	Spring, 2008
Cameron Denson	College of Education, Technology Education	PhD	Research supervisor	2006-08	Summer, 2008

#### **f. Undergraduate Student Mentoring**

F21-present Cheng-Chi Tsai, Undergraduate Grader for EGR 217, Student Leader for ASU 101, UGTA for EGR 217

Sp21 Jose Macias, Undergraduate Grader for EGR 201

F20 Dana Armendariz, Undergraduate Grader for EGR 217

F17, F18, Sp19 Jobana Westbay, Undergraduate Grader for EGR 217

2012-2014 Julie Chambers, Undergraduate Researcher.

2012-2013 Olivia Gorbatkin, Undergraduate Researcher, presented at UGA's Center for Undergraduate Research Opportunities Symposium (CURO), 2013.

2006-2012 Academic Advisor to 25 students per semester.

2007-2010 Ashley Babcock, Undergraduate Researcher, presented at UGA's Center for Undergraduate Research Opportunities Symposium (CURO), 2008; Attended and presented at the American Society for Engineering Education (ASEE), 2008; Awarded an NSF Graduate Research Fellowship in Spring 2010.

2009-2010 Steven Joiner, Undergraduate Researcher

2009-2010 Robin Moore, Undergraduate Researcher

2009 James Dimitroff, Undergraduate Researcher

#### **8. Professional Society Membership**



American Society for Engineering Education  
American Educational Research Association  
Pi Tau Sigma, Mechanical Engineering Honor Society  
Tau Beta Pi, Engineering Honor Society