Curriculum Vitae of

Kristin Cook, Ph.D.

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CV At-A-Glance

- **Ph.D.** in Curriculum and Instruction, Science Education, Indiana University, Bloomington
- $3.2 million in externally and internally **Funded Projects**
- 68+ peer-reviewed **Manuscripts** and **Book Chapters** published or in-press
- 5 refereed **Books** published
- 100+ peer-reviewed and invited **Presentations** nationally and regionally
- Editorial Review Board**,** Strand Coordinator, Elections Committee, Awards Committee, Advisory Boards **Professional Appointments** in professional organizations
- **Professional Developer** in Project/Problem-based Learning, Next Generation Science Standards, STEM and STEAM Education
- **Administrative Experience** as Associate Dean, Chair of Undergraduate Education Programs, and Chair of CAEP Accreditation Standard 1

EDUCATIONAL BACKGROUND

2007-2012 *Ph.D. in Curriculum and Instruction – Secondary Education* (emphasis in Science Education) at Indiana University, Bloomington, IN.
- Minor: *Environmental Science*, School of Public and Environmental Affairs
- Dissertation Title: Can we *really* make a difference? Pre-service teachers' experience with socio-scientific issues aiming for democratic participation with scientists
- Advisor: Dr. Gayle Buck

2000-2002 *Master's degree and Teaching Certification in Curriculum and Instruction – Secondary Education* (emphasis in Science Education) at Indiana University, Bloomington, IN.
- State Certification to teach Biology and General Science (grades 5-12) #1051408
- Advisor: Dr. Hans Anderson

1995-1999 *Bachelor's Degree in Biology with Highest Distinction (1999), Area Certificate in Animal Behavior (1999),* and *Minor in Psychology (1999)* at Indiana University, Bloomington, IN.
- Summa cum laude

PROFESSIONAL APPOINTMENTS

2012-2025	Bellarmine University	Full Professor (2023-present); Associate Professor (2016-2022); Assistant Professor (2012-2016) of Science Education
2018-2025	Bellarmine University	Associate Dean, School of Education
2016-2020	Bellarmine University	Chair of CAEP Accreditation (Standard 1)
2016-2018	Bellarmine University	Chair of Undergraduate Education Programs

2003-2007	Mooresville High School	Biology Teacher; Life Science Teacher
2002-2003	Edgewood High School	General Science, Honors Biology, Advanced Placement (AP) Biology Teacher

PROFESSIONAL DEVELOPER

2021-2025	Amgen for High School Teachers	Professional Developer- *Biotechnology Curriculum* (funded by Amgen)
2019-2023	Alliance for Science Educators Toolkit	Professional Developer- *NGSS Curriculum Development* (funded by NSF)
2022-2023	Bellarmine University	Professional Developer- *STEAM-based SPED* (hosted by Physical Therapy)
2022-2023	Bellarmine University	Professional Developer- *Grant Writing Workshop* (hosted by Faculty Affairs)
2022-2023	Sigsbee Charter School	Professional Developer- *Problem and Project-based Learning* (funded by DoDEA)
2021-2022	New Teacher Project	Professional Developer- *STEAM Education* (funded by KY DOE)
2021-2022	Kentucky Science Teachers Association	Professional Developer- *STEAM Education for formal and non-formal educators*
2019-2022	GenCyber Teachers and Students	Professional Developer- *Cybersecurity* (funded by NSF/NSA)
2020-2021	Kentucky Educational Development Corporation	Professional Developer- *STEAM Educator Cadre* (funded by DOE)
2018-2019	Next Generation Leadership Academy	Professional Developer- *STEAM Education* (funded by KY DOE)
2018-2019	PaTTAN Network	Professional Developer- *STEAM Education* (funded by PA DOE)
2015-2017	Jefferson County Public Schools	Project Director for STEAM) Academy (funded by MSP)
2013-2014	Kentucky Institute for International Studies	Course Developer for Costa Rica- Environmental Sustainability and Health & Wellness
2011-2012	Indiana University	Educational Consultant- *Socio-scientific Issues Curriculum Development, Web Applications*
2011-2012	Indiana University	Research Associate- *Urban STEM Initiative*

2010-2012	Department of Education	Professional Developer- *Indiana Science Initiative, Literacy in Science through Notebooking*
2007-2012	Indiana University	Research Assistant- *Urban Project-based Learning: Power Up for Science*
2009-2010	Indiana Public Schools	Professional Developer- *Passport to Science: Infusing Inquiry into Elementary Science Curriculum*

SCHOLARSHIP

PUBLICATIONS

** Denotes current or past student as co-author (undergraduate, graduate or doctoral)*
+ Denotes community partner

Refereed Manuscripts (published/in press or in review)

Roberts, T., Jackson, C., Mohr-Schroeder, M., Maiorca, C., Bush, S., & **Cook, K.** (in press). Disrupting the STEM status quo with equity-focused integrated STEM practices (ISPs). *School Science and Mathematics*.

*Edelen, D., **Cook, K.,** Tripp, L. O., Jackson, C., Bush, S. B., Mohr-Schroeder, M. J., Schroeder, D. C., Roberts, O. T., Maiorca, C., Ivy, J., Burton, M., & *Perrin, A. (in press). "No, this is not my Boyfriend's Computer:" A brief report elevating the voices of youth in STEM education research leveraging photo elicitation. *Journal for STEM Education Research.*

Cook, K.L.; Ivy, J.; Maiorca, C.; Tripp, O.; Burton, M.; Jackson, C.; Bush, S.B.; Mohr-Schroeder, M.; Edelen, D.; Schroeder, C.; et al. (2024). STEM Rocks research collective: Building and sustaining a collaborative, equity-focused scholarly community. *Education Sciences,14*, 947. https:// doi.org/10.3390/educsci14090947

Bush, S. B., *Edelen, D., Roberts, T., Maiorca, C., Ivy, J. T., **Cook, K. L.,** Tripp, L. O. Burton, M., Alameh, S., Jackson, +C., Mohr-Schroeder, M. J., Schroeder, D. C., McCurdy, R. P., *Cox Jr., R. (2024) Humanistic STE(A)M instruction through empathy: leveraging design thinking to improve society, *Pedagogies: An International Journal, 19:*1, 60-79, DOI: 10.1080/1554480X.2022.2147937

Cook, K. & Wheeler, W. (2023). Using popular fiction to inspire scientific inquiry. *Journal of College Science Teaching*, *52*(5), 14-19.

*Edelen, D., *Cox, R., Bush, S., & **Cook, K.** (2023). Centering students in transdisciplinary STEAM using positioning theory. *The Electronic Journal for Research in Science & Mathematics Education, 26*(4), 111-129.

Thomas, K., Ivy, J., **Cook, K.,** & Kelley, R. (2023). The impact of a GenCyber camp on inservice teachers' TPACK. *Journal of Cybersecurity Education, Research and Practice*, *2*, 6.

*Burton, P., **Cook, K.,** Kelley, R., Ivy, J., & Thomas, K. (2022). Fingerprint spoofing: Exploring cybersecurity with limited technology. *Connected Science Learning, 4*, 6.

Cook, K., Mahmood, A., *Nygard, C., +Gentry-Johnson, M. & +Blankenship, M. (2022).

Impact of internship on undergraduate STEM students' interest in STEM teaching. *The Electronic Journal for Research in Science & Mathematics Education, 26,* 3, 19-39.

Cook, K. & Ivy, J. (2022). I will survive: An engineering design challenge for the virtual classroom. *Science and Children, 59*, 5, 57-61.

Cook, K., Alameh, S., Tripp, L., Maiorca, +C., Schroeder, C., & Mohr-Schroeder, M. (2021). Reimagining the five practices for effective and equitable discourse: An example from a virtual STEM experience. *Connected Science Learning* 3(3).

Ivy, J., Kelley, R., **Cook, K.,** & Thomas, K. (2020). Incorporating cyber principles into middle and high school curriculum. *International Journal of Computer Science Education in Schools*, 3-23.

*Waters, C. & **Cook, K.** (2020). Designing environmental science curriculum with photovoice to engage non-science majors. *Journal of College Science Teaching, 49*, 5, 28-35.

Bush, S.B., **Cook, K.L**., *Edelen, D., *Cox, R. (2020). Elementary students' STEAM perceptions: Extending frames of reference through transformative learning experiences. *The Elementary School Journal, 120*, 4, 692-714. doi: https://doi.org/10.1086/708642 (~15% acceptance, IF: 1.140)

Bush, S., Mohr-Schroeder, M., **Cook, K.,** Rakes, C., Ronau, R., & Saderholm, J. (2020). Structuring integrated STEM education professional development: Challenges revealed and insights gained from a cross-case synthesis. *Electronic Journal for Research in Science & Mathematics Education, 24*, 1, 26-55. (~20% acceptance, no IF)

Cook, K. L., Bush, S. B., *Cox, R., & *Edelen, D. (2020). Development of elementary teachers' science, technology, engineering, arts, and mathematics planning practices. *School Science and Mathematics, 120,* 197–208. (~20% acceptance, no IF)

*Edelen, D., Bush, S. B., **Cook. K. L.,** *Cox, R. (2020). The power of building empathy in STEAM. *The Elementary STEM Journal*, *23*(4), 10-13.

*Edelen, D., Bush, S. B., Simpson, H., **Cook, K. L**., Abassian, A. (2020). Moving towards shared realities through empathy in mathematical modeling: An ecological systems theory approach. *School Science and Mathematics, 120*(3), 144-152. doi: https://doi.org/10.1111/ssm.12395 (~20% acceptance, no IF)

Franz, C. & **Cook, K.** (2020). Utilization of social determinants of health to improve education among youth in Dominican baseball academies. *Health and Social Care in the Community, 28*, 423–430.

*Cox, R., +Hunter, K., **Cook, K. L.,** & Bush, S. B. (2019). Problem-based paleontology: A STEAM exploration for fourth graders. *Science and Children, 56*(5), 42-48.

Bush, S. B. & **Cook, K. L**. (2018). K-12 STEM and STEAM education in the United States: Vision and best practices. *Teachers College Record.* Record Number: 22533. (~8% acceptance, IF: 1.072)

+Owen, K. D., +Kaiser, L. J., Bush, S. B., & **Cook, K. L**. (2018). A STEAM investigation: Making giant strides. *Teaching Children Mathematics. 25*(2), 122-125.

Bush, S. B., **Cook, K. L**., Ronau, R. N., Rakes, C. R., Mohr-Schroeder, M. J., & Saderholm, J. (2018). A highly structured collaborative STEAM program: Enacting a professional development framework. *Journal of Research in STEM Education 2*(2), 106-125.

Cook, K. L., Bush, S. B., & *Cox, R. (2018). Establishing a STEAM learning environment, Partnering for successful STEAM teaching and learning, Administrator checklist for supporting STEAM, and STEAM video. *Association for Supervision and Curriculum Development (ASCD) myTeachSource® online professional development platform.* Alexandria, VA: Association for Supervision and Curriculum Development.

Cook, K. & Bush, S. (2018). Design thinking in integrated STEAM learning: Surveying the landscape and exploring exemplars in elementary grades. *School Science and Mathematics, 118,* 3-4, 93-103. *****This article was 2019 Most Downloaded Articles for SSM***

+Kaiser, L., +Owen, K., **Cook, K.** & Bush, S. (2018). The giant problem: Using design thinking to explore thermal conductivity. *Science and Children, 55,* 8, 71-75.

Bush, S., Karp, K., *Cox, R., **Cook, K.,** +Albanese, J., & Karp, M. (2018). Design thinking framework: Shaping powerful mathematics. *Mathematics Teaching in the Middle School, 23*(4), e1-e5.

+Hunter, K., *Cox, R. Bush, S., & **Cook, K.**, & +Jamner, J. (2017). A paleontology investigation: Unearthing the mathematics. *Teaching Children Mathematics, 23,* 7, 438-441.

Cook, K. L., Bush, S. B, & *Cox, R. (2017). From STEM to STEAM: Incorporating the arts in roller coaster engineering. *Science and Children, 54,* 6, 86-93.

Bush, S. B., & **Cook. K. L.** (2016). Constructing authentic and meaningful STEAM experiences through university, school, and community partnerships. *Journal of STEM Teacher Education, 51*(1), 57-69.

Bush, S. B., *Cox, R., & **Cook, K.** (2016). Building a prosthetic hand: Math matters. *Teaching Children Mathematics, 23,* 2, 110-114.

Cook, K. & Block, C. (2016). Complementing connections among curricula: Integrating science and social studies for fourth graders. *Science and Children, 54,* 2, 36-42.

Cook, K., Bush, S., & Karp, K. (2016). Clarifying confusing science rules, vocabulary, and diagrams. *The American Biology Teacher, 78,* 8, 676-678.

Cook, K., Brown, A., & Ballard, G. (2016). Using photovoice to explore environmental sustainability across languages and cultures. *Discourse and Communication for Sustainable Education, 7,* 49-67.

Oliveira, A. & **Cook, K.** (2016). Student visual communication of evolution. *Research in Science Education, 46,* 1-20.

Cook, K., Bush, S. B., & *Cox. R. (2016, invited). Engineering encounters: Creating a prosthetic hand. Reprinted from an article in *Science and Children*, in L. Froschauer (Ed.) *Bringing STEM to the Elementary Classroom*. Arlington, VA: NSTA Press. *****Our book was the Top Pick of NSTA Recommendations***

Buck, G., **Cook, K.,** & Carter, I. (2016). Attempting to make place-based pedagogy on environmental sustainability integral to teaching and learning in middle school: An instrumental case study. *Electronic Journal of Science Education, 20*, 2, 32-47.

Cook, K. (2016). Discussions on STEAM. Bellarmine Magazine: The Pineapple Podcast. Bellarmine University.

Cook, K. (2015, invited). K-12 teachers' responsibility in informed dialogue about the care of our planet: A comment on the Pope's encyclical. Bellarmine Magazine.

Cook, K. & Oliveira, A. (2015). Communicating evolution: An exploration of students' skills in an essential practice of science. *Electronic Journal of Science Education, 19,* 5, 1-23.

Cook, K., Bush, S., & *Cox, R. (2015). Creating a prosthetic hand: 3D printers innovate and inspire a maker movement. *Science and Children, 53,* 65-71.

Cook, K. (2015). Grappling with wicked problems: Exploring photovoice as a decolonizing methodology in science education. *Cultural Studies of Science Education, 10,* 3, 581-592.

Bush, S., Dinkins, E., & **Cook, K.** (2015). Connecting young adult literature, literacy, and STEM. Association *for Middle Level Education (AMLE) Magazine, 2*(9), 14-16.

Cook, K. & Dinkins, E. (2015). Using popular text to develop inquiry projects: Supporting pre-service teachers' knowledge of disciplinary literacy. *Journal of College Science Teaching, 44*(6), 44-50.

Cook, K. & Bush, S. (2015). Structuring a science-mathematics partnership to support pre-service teacher's data analysis and interpretation skills. *Journal of College Science Teaching, 44*, 5, 46-52.

Cook, K. & Dinkins, E. (2015). Building disciplinary literacy through popular fiction. *Electronic Journal of Science Education, 19*(3), 1-24.

Cook, K. & Buck, G. (2014). Pre-service elementary teachers' experience in a community of practice through a place-based inquiry. *International Journal of Environmental and Science Education, 9*(3), 111-132.

Cook, K. (2014). Beginning a classroom inquiry: Using photovoice to connect college students to community science. *Journal of College Science Teaching, 43*(6), 22-27.

Cook, K. (2014). What's the skinny? Evaluating the effects of instituting a 'fat tax' in America. *Education and Health, 32*(1), 14-18.

Cook, K., +Keller, D., & +Myers, A. (2014). Bioethics in The Hunger Games: Evaluating the effects of genetic engineering through popular fiction. *The Science Teacher, 81*(1), 3-9.

Buck, G., **Cook, K**., Quigley, C., +Prince, P., & +Lucas, Y. (2014). Seeking to improve young African American girls' attitudes toward science: A participatory action research study. *The Elementary School Journal, 114*(3), 431-453.

Cook, K. & Weiland, I. (2013). Dialogue among educators: Understanding the intended goals and perceived roles within a nonformal and formal educator partnership. *Journal of Sustainability Education, 5.* Retrieved from

Cook, K. & Buck, G. (2013). Pre-service teachers' understanding of the nature of science through socio-scientific inquiry. *Electronic Journal of Science Education, 17*(1), 1-24.

Cook, K. & Quigley, C. (2013). Connecting to our community: Utilizing photovoice as a pedagogical tool to connect college students to science. *International Journal of Environmental and Science Education, 8*(2), 339-357. *****This paper won the ASTE Innovations in Teaching Science Teachers Award***

Cook, K., Buck, G., & Park Rogers, M. (2012). Preparing educators to teach evolution in a project-based approach. *The Science Educator, 21,* 44-56.

Oliveira, A., **Cook, K.,** & Buck, G. (2011). Framing evolution discussion intellectually. *Journal for Research in Science Teaching, 48*(3), 257-280.

Quigley, C., +Rodriguez, A., **Cook, K.,** & Buck, G. (2011). Pictures of real life: Kindergartners use photography to explore science in their surroundings. *Science and Children, 48,* 47- 51.

Cook, K. & Buck, G. (2010). Photovoice: A community-based socioscientific pedagogical tool. *Science Scope, 33,* 35-39.

Cook, K. & Weiland, I. (2010). A suggested project-based environmental unit for middle school: Teaching content through inquiry. *Science Scope, 33,* 46-50.

Cook, K. (2009). A suggested project-based evolution unit for high school: Teaching content through application. *The American Biology Teacher, 71,* 95-100.

Buck, G., **Cook, K.,** Quigley, C., Eastwood, J., & +Lucas, Y. (2009). Profiles of urban, low SES, African American girls' attitudes toward science: A sequential explanatory mixed-methods study. *Journal of Mixed Methods Research, 3*(4), 386-410.

Book Chapters (published/in press or in review)

Bush, S. B. & **Cook, K. L.** (2019). Structuring STEAM inquiries: Lessons learned from practice. In M. S. Khine & S. Areepattamannil (Eds.), *STEAM Education: Theory and Practice*. pp. 19-35. *Cham, Switzerland: Springer Nature Switzerland.*

Olivera, A. & **Cook, K.** (2018). The rise of the creationist movement in Brazil. In L. Borderding & H. Deniz (Ed.) *Evolution Education around the Globe*. New York: Springer.

Cook, K. & Buck, G. (2016). Our neighborhood: A place for heightening emotional energy in science education. In A. Bellochi & C. Quigley (Ed.) *Exploring Emotions Aesthetics and Wellbeing in Science Education Research.* New York: Springer.

Cook, K. (2014). Democratic participation with scientists through socioscientific inquiry. In M. Mueller & D. Tippins (Ed.) *EcoJustice, Citizen Science and Youth Activism: Situated Tensions for Science Education.* New York: Springer.

Weiland, I., +Pokral, E., & **Cook, K.** (2014). Using project-based learning to teach sustainability issues to elementary students. In K. Thomas & H. Muga (Ed.) *Cases on Pedagogical Innovations for Sustainable Development*. New York: Springer.

Eastwood, J.L., Schlegel, W.M., & **Cook, K.** (2011). Effects of an interdisciplinary program on students reasoning with socioscientific issues and perceptions of their college experience. In T.D. Sadler (Ed.) *Socio-scientific Issues in Science Classrooms: Teaching, Learning and Research.* New York: Springer.

Refereed Books

Bush, S. B., & **Cook, K. L.** (2025). *Step into STEAM, grades K-5: Your standards-based action plan for deepening mathematics and science learning. 2nd edition.* Thousand Oaks, CA: Corwin and Reston, VA: National Council of Teachers of Mathematics.

Jackson, C., Roberts, T., Maiorca, C., **Cook, K.,** Bush, S., & Mohr-Schroeder, M. (2024). *Simplifying STEM: Four equitable practices to inspire meaningful learning (grades preK-5).* Thousand Oaks, CA: Corwin and Reston, VA: National Council of Teachers of Mathematics.

Jackson, C., **Cook, K.,** Bush, S., Mohr-Schroeder, M., Maiorca, C., & Roberts, T. (2024). *Simplifying STEM: Four equitable practices to inspire meaningful learning (grades 6-12).* Thousand Oaks, CA: Corwin and Reston, VA: National Council of Teachers of Mathematics.

Oliveira, A. & **Cook, K**. (Eds.) (2019). *Evolution education and the rise of the creationist movement in Brazil*. Lanham, MD: Lexington Books.

Bush, S. B., & **Cook, K. L.** (2019). *Step into STEAM, grades K-5: Your standards-based action plan for deepening mathematics and science learning.* Thousand Oaks, CA: Corwin and Reston, VA: National Council of Teachers of Mathematics.

Multi-Media Appearances

Cook, K., Roberts, T., & Maiorca, C. (2024). Maximizing the use of STEM labs within schools. Invited blog post published in Corwin Connect. Retrieved at: https://corwin-connect.com/2024/04/maximizing-the-use-of-stem-labs-within-schools/

Cook, K. (2024). Bellarmine hosts annual STEM maker fair. WDRB News. Louisville, KY. Retrieved at: https://www.wdrb.com/news/wdrb-video/bellarmine-hosts-annual-stem-maker-fair/video_17e0a9af-2f22-5810-80e2-cbdd79446f3e.html

Cook, K. (2024). High school students get hands-on STEM experience at Bellarmine Maker Fair. Wave3 News. Louisville, KY. Retrieved at: https://www.wave3.com/2024/03/07/high-school-students-get-hands-on-stem-experience-bellarmine-maker-fair/

Cook, K. (2024). STEM Maker Fair makes learning fun. Spectrum News. Louisville, KY. Retrieved at: https://spectrumnews1.com/ky/northern-ky/education/2024/03/07/400--students-get-hands-on-with-stem-at-bellarmine-university-

Ivy, J., Maiorca, C., Burton, M., **Cook, K.,** Mohr-Schroeder, M., Bush, S. (2024, April). AI-powered math education: What math teacher educators need to know [webinar]. Association of Mathematics Teacher Educators (AMTE). Retrieved at: https://amte.net/content/ai-powered-math-education-what-math-teacher-educators-need-know

Bush, S. B. & **Cook, K. L.** (2024). Three helpful tips for meaningful STEM integration during science or mathematics instructional time. Invited blog post published in Corwin Connect. Retrieved at: https://corwin-connect.com/2024/03/three-tips-for-meaningful-stem-integration-during-science-or-mathematics-instructional-time/

Cook, K. (2024, February). Celebration of Science: Pathways to the Future. Kentucky Science Center. Retrieved at: https://vimeo.com/uproarfilms/review/906769595/30f760b92d

Cook, K. (2022, August). Bellarmine University awarded $1.45M grant for future math and science teachers. WLKY News. Louisville, KY. Retrieved at: https://www.wlky.com/article/bellarmine-university-awarded-145-million-grant-future-math-science-teachers-louisville/40884968

Cook, K. (2021, July). Reimagining the five practices for effective and equitable discourse: An example from a virtual STEM experience. Invited Virtual Chat with Authors hosted by the National Science Teaching Association (NSTA). Retrieved at: https://twitter.com/search?q=%40nstachat&src=typed_query

Bush, S.B. & **Cook, K.L.** (2019). STEAM learning experiences: Thinking beyond a makerspace. Corwin Connect. Retrieved at: https://corwin-connect.com/2019/07/steam-learning-experiences-thinking-beyond-a-makerspace/

Cook, K.L. & Bush, S. B. (2019). STEAM education for each and every student. Corwin Connect. Retrieved at: https://corwin-connect.com/2019/06/steam-education-for-each-and-every-student/

Cook, K. L. & Bush, S. B. (2017). JCPS students show off intellectual skills at STEAM Maker Fair. WDRB News. Louisville, KY. Retrieved at: http://www.wdrb.com/story/35215522/jcps-students-show-off-intellectual-skills-at-steam-maker-faire

Cook, K., Bush, S., +Owen, K., & +Kaiser, L. (2016). STEAM in our community. Dawne Gee Show. Wave TV. Retrieved at: https://www.wave3.com/clip/12620170/the-steam-project-at-bellarmine-university/

PEER-REVIEWED PRESENTATIONS

** Denotes current or past student as co-author (undergraduate, graduate or doctoral)*
+ Denotes community partner

Refereed International and National Meetings

Roberts, T., Jackson, C., Bush, S., & **Cook, K.** (2025). Inspiring learning with integrated STEM practices. Presentation at the International Technology and Engineering Educators Association (ITEEA) STEM conference. St. Louis, MO.

Jackson, C., Bush, S., & **Cook, K.** (2024). Integrated STEM practices that inspire meaningful learning. Presentation at the International Technology and Engineering Educators Association (ITEEA) STEM conference. Virtual.

Jackson, C., Mohr-Schroeder, M., **Cook, K**., Bush, S., Maiorca, C., Roberts, T. (2024). Simplifying STEM: Four equitable practices to inspire meaningful learning. Presentation at the School Science and Mathematics Association (SSMA). Knoxville, TN.

Cook, K. & Colen, J. (2024). Effects of an informal education internship experience on STEM majors' interest in teaching. Presentation at the School Science and Mathematics Association (SSMA). Knoxville, TN.

Cook, K. & *Hartlage, E. (2024). Lessons learned from informal education internship experience with Noyce scholar interns. Presentation at the Noyce Summit hosted by the National Science Foundation (NSF). Washington, D.C.

Cook, K., Xiang, L., & *Ousley, C. (2024). An instructional tool to help K-8 teachers identify anchoring phenomena for phenomenon-based science instruction. Presentation at the National Science Teaching Association (NSTA). Denver, CO.

Jackson, C., **Cook, K.,** & Roberts, T. (2024). Simplifying STEM: Four equitable practices to inspire meaningful learning. ASTE-sponsored presentation at the National Science Teaching Association (NSTA). Denver, CO.

Jackson, C., **Cook, K.,** Bush, S., Mohr-Schroeder, M., Maiorca, C., & Roberts, T. (2023). Implementing the integrated STEM practices in the classroom. Presentation at the School Science and Mathematics Association (SSMA). Colorado Springs, CO.

*Edelen, D.**, Cook, K.** L., Tripp, L. O., Jackson, C., Bush, S. B., Mohr Schroeder, M., Schroeder, D. C., Roberts, T., Maiorca, C., Ivy, J., Burton, M., *Cox Jr., R., & Perrin, A. (2023, October). Participant centered research in STEM education using photo elicitation and photovoice. Presentation at the School Science and Mathematics Association (SSMA). Colorado Springs, CO.

*Cox, R., *Edelen, D., Bush, S., & **Cook, K.** (2023, October). Centering students in transdisciplinary STEAM using positioning theory. Presentation at the School Science and Mathematics Association (SSMA). Colorado Springs, CO.

Cook, K., Ivy, J. & Mahmood, A. (2023, October). Preparing STEM students to become STEM teachers: Reflections from a Noyce project. Presentation at the School Science and Mathematics Association (SSMA). Colorado Springs, CO.

Roberts, T., Maiorca, C., Jackson, C., Mohr-Schroeder, M., **Cook, K.,** & Bush, S. (2022, October). Integrated STEM as problem-solving practices. Presentation at the School Science and Mathematics Association (SSMA). Missoula, MT.

*Edelen, D., Roberts, T., Maiorca, C., **Cook, K**., Tripp, L., Burton, M., Jackson, C., Bush, S. & Mohr-Schroeder, M. (2022, October). Belonging, becoming, and STEM identity development: A photo elicitation investigation. Presentation at the School Science and Mathematics Association (SSMA). Missoula, MT.

Cook, K., Ivy, J., & Mahmood, A. (2022, October). Experiencing STEM teaching as emerging educators. Presentation at the School Science and Mathematics Association (SSMA). Missoula, MT.

Cook, K. L., *Cox Jr., R , & McCurdy, R. P. (2022, January). Humanizing integrated STEAM instruction through empathy. Presentation at the International Association for Science Teacher Education (ASTE). Greenville, SC.

Cook, K., Mahmood, A., *Nygard, C., +Gentry-Johnson, M. & +Blankenship, M. (2022, January). Impact of internship on undergraduate STEM students' interest in STEM teaching. Presentation at the International Association for Science Teacher Education (ASTE). Greenville, SC.

Cook, K. L. & *Cox, R. (2021, July). Step into STEAM. Invited Elementary STEM Showcase Presentation at the STEM Forum & Expo hosted by the National Science Teaching Association (NSTA). Virtual Conference.

Cook, K. & Alameh, S., Mohr-Schroeder, M., Maiorca, C., +Schroeder, C., & Tripp, O. (2021, July). Reimagining the five practices for effective and equitable discourse: An example from a virtual STEM experience. Presentation given at the STEM Expo and Forum hosted by the National Science Teaching (NSTA). Virtual Conference.

Bush, S. B., *Edelen, D., Roberts, T., Maiorca, C., Ivy, J. T., **Cook, K. L.,** Tripp, L. O. Burton, M., Alameh, S., Jackson, C., Mohr-Schroeder, M. J., +Schroeder, D. C., McCurdy, R. P., & *Cox Jr., R. (2021, October). The role of empathy in integrated STE(A)M instruction. Presentation to be given at the School Science and Mathematics Association (SSMA) Annual Convention. Virtual.

Bush, S. B., **Cook, K. L.,** *Edelen, D., & *Cox, R. (2021, October). Elementary students' STEAM perceptions. Presentation to be given at the School Science and Mathematics Association (SMMA) Annual Convention. Virtual.

Cook, K. & Mahmood, A. (2021, May). Strengthening STEM teacher education pathways in Kentucky with collaborative partnerships. STEM for ALL Showcase sponsored by the National Science Foundation (NSF). Online Conference.

Thomas, K., Ivy, J., **Cook, K.,** & Kelley, R. (2020, December). The impact of a GenCyber camp on inservice teachers' TPACK. International Society for Technology in Education (ISTE). Online Conference.

Cook, K. L., & Mahmood, A. (2020, August). Strengthening STEM teacher education pathways in Kentucky with collaborative partnerships. Presentation given at the Virtual Noyce Summit hosted by the National Science Foundation (NSF). Online Conference.

Ivy, J., Kelley, R., **Cook, K**., Thomas, K., +Wong, E., & *Burton, P. (2020, July). Arming the next generation of cyber knights. Presentation to be given at the 9th Annual STEM Expo and Forum hosted by the National Science Teaching (NSTA). Louisville, KY.

Mahmood, A., **Cook, K.** & *Nygard, C. (2020, July). Strengthening STEM teacher education pathways: Inspiring STEM students to pursue a career in STEM teaching through internships. Presentation to be given at the 9th Annual STEM Expo and Forum hosted by the National Science Teaching (NSTA). Louisville, KY.

Cook, K. L., & Mahmood (2020, May). Strengthening STEM teacher education pathways in Kentucky with collaborative partnerships. Presentation given at the STEM for ALL Showcase sponsored by the National Science Foundation (NSF). Online Conference.

Cook, K., Bush, S., *Cox, R., & *Edelen, D. (2020, January). Development of elementary teachers' STEAM planning practices. Presentation at the International Association for Science Teacher Education (ASTE). San Antonio, TX.

Oliveira, A. & **Cook, K.** (2020, January). Evolution education and the rise of the creationist movement in Brazil: A Book Preview. Presentation at the International Association for Science Teacher Education (ASTE). San Antonio, TX.

*Waters, C. & **Cook, K.** (2019, October). Designing curriculum to engage young people in environmental dialogue. North American Association for Environmental Education (NAAEE). Lexington, Kentucky.

*Waters, C. & **Cook, K.** (2019, August). Using photovoice to engage non-major undergraduate students in ecology topics. Ecological Society of America (ESA). Louisville, KY.

Cook, K. L. & Bush, S. B. (2019, July). Teaching STEAM through a problem-based paleontology exploration. Presentation to be given at the 8th Annual STEM Expo and Forum hosted by the National Science Teaching (NSTA). San Francisco, CA.

Cook, K. L. & Bush, S. B. (2019, July). Step into STEAM. Invited Elementary STEM Showcase Presentation at the STEM Forum & Expo hosted by the National Science Teaching Association (NSTA). San Francisco, CA.

Bush, S. B. & **Cook, K. L**. (2019, April). Authentic STEAM instruction to support and challenge each and every learner. Presentation to be given at the annual meeting of the National Council of Supervisors of Mathematics (NCSM). San Diego, CA.

Bush, S. B., **Cook, K.,** *Edelen, D., & *Cox, R. (2019, January). Elementary students' perceptions of STEAM learning. Presentation to be given at the annual meeting of the International Association for Science Teacher Education (ASTE), Savannah, GA.

*Cox, R. **Cook, K.,** & Bush, S. (2019, January). Fresh thinking for students through STEAM. Presentation to be given at the annual meeting of the International Association for Science Teacher Education (ASTE), Savannah, GA.********National Technology Leadership Initiative Award Finalist***

Cook, K., Bush, S., Mohr-Schroeder, M., Rakes, C., Ronau, R., & Saderholm, J. (2019, January). Highly-structured integrated STEM professional development: Challenges and insights gained from a cross-case analysis. Roundtable presentation at the International Association for Science Teacher Education (ASTE), Savannah, GA.

Bush, S. B., **Cook, K. L**., & *Cox, R. (2018, April). Authentically and meaningfully integrating the "M" in STEAM: The mathematics matters! Presentation to be given at the National Council of Teachers of Mathematics (NCTM) Research Conference. Washington, DC.

Ronau, R. N., Bush, S. B., Rakes, C. R., Mohr-Schroeder, M., **Cook, K.,** & Saderholm, J. (2018, April). PrimeD: A Framework to Guide PD, Embed Evaluation, and Structure Research. Research Symposium presentation given at the National Council of Teachers of Mathematics (NCTM) Research Conference. Washington, DC.

Oliveira, A., & **Cook, K.** (2018, April). Public evolution education and the rise of the creationist movement in Brazil. Paper presentation at the American Educational Research Association (AERA), New York City, NY.

Cook, K., Rakes, C., Saderholm, J., Bush, S., Mohr- Schroeder, M., & Ronau, R. (2018, January). PrimeD: A professional development framework to build partnerships and empower teachers. Paper presentation at the International Association for Science Teacher Education (ASTE), Baltimore, MD.

Cook, K., Bush, S., Saderholm, J., Rakes, C., Ronau, R., & Mohr-Schroeder, M. (2018, January). A structured and collaborative STEAM program: Operationalizing a professional development framework. Paper presentation at the International Association for Science Teacher Education (ASTE), Baltimore, MD.

Bush, S. B., **Cook, K. L**., & *Cox, R. (2017, July). Math matters: A closer look at the "M" in STEAM. Paper presentation at the STEM Forum & Expo hosted by the National Science Teaching Association (NSTA). Orlando, FL.

Cook, K. L., Bush, S. B., & *Cox, R. (2017, July). Elementary STEM Showcase, Science and Children Engineering Encounters: Roller Coasters. Presentation at the STEM Forum & Expo hosted by the National Science Teaching Association (NSTA). Orlando, FL.

Cook, K., Bush, S. & *Cox, R. (2017, July). Bringing STEM to the elementary classroom. Invited paper presentation at the STEM Forum & Expo hosted by the National Science Teaching Association (NSTA), Orlando, FL.

Cook, K. L., & Bush, S. B**.** (2017, May). Full STEAM ahead: PD model for best practices in integrated STEAM instruction. Presentation given at the STEM for ALL Showcase sponsored by the National Science Foundation (NSF). Online Conference. ***** Featured Video Showcase***

Cook, K.L. & Bush, S.B. (2017, May). Full STEAM ahead: Best practices for integrated STEAM instruction. NSF STEM for All Video Showcase: Research & Design for Impact.

Ronau, R. N., Rakes, C. R., Bush, S. B., Mohr-Schroeder, M., Saderholm, J., & **Cook, K. L**. (2017, April). PrimeD: A PD Framework to Build Partnerships and Empower Teachers. Presentation to be given at the National Council of Teachers of Mathematics (NCTM) Research Conference. San Antonio, TX.

Cook, K. & Bush, S. (2016, July). Structuring an interdisciplinary STEM unit to support students' data analysis and interpretation skills. Paper presentation at the STEM Forum & Expo hosted by the National Science Teachers Association (NSTA), Denver, CO.

Cook, K., Bush, S., & *Cox, R. (2016, July). Bringing STEM to the elementary classroom. Invited paper presentation at the STEM Forum & Expo hosted by the National Science Teachers Association (NSTA), Denver, CO.

Cook, K. & *Cox, R. (2016, April). Engineering encounters: Creating a prosthetic hand. Invited workshop presentation at the Elementary STEM Showcase at the National Science Teachers Association (NSTA), Nashville, TN.

Cook, K., Brown, A., & Ballard, G. (2016, January). Using photovoice to explore environmental sustainability across cultures. Paper presentation at the International Association for Science Teacher Education (ASTE), Reno, NV.

Cook, K. & Buck, G. (2016, January). Our neighborhood: A place for heightening emotional energy in science education. Roundtable presentation at the International Association for Science Teacher Education (ASTE), Reno, NV.

Cook, K. & Oliveira, A. (2015, April). High school students' public communication about evolution. Paper presentation at the American Educational Research Association (AERA), Chicago, IL.

Cook, K. & Dinkins, E. (2015, April). Building disciplinary literacy through popular fiction. Paper presentation at the American Educational Research Association (AERA), Chicago, IL.

Cook, K. (2015, March). Should America enforce a fat tax? Paper presentation at the National Science Teachers Association (NSTA), Chicago, IL.

Oliveira, A. & **Cook, K.** (2015, January). Communicating evolution to the public: A communicative approach to controversial science instruction. Paper presentation at the International Association for Science Teacher Education (ASTE), Portland, OR.

Cook, K. & Dinkins, E. (2015, January). Teaching pre-service teachers disciplinary literacy through popular fiction. Paper presentation at the International Association for Science Teacher Education (ASTE), Portland, OR.

Dinkins, E. & **Cook, K.** (2014, November). Meeting in the Third Space: Teacher educators explore ways to teach science disciplinary literacy. Paper presentation at the Association of Literacy Educators and Researchers (ALER), Del Ray Beach, FL.

Weiland, I. & **Cook, K.** (2014, April). Utilizing a claims, evidence, reasoning framework to integrate K-5 instruction. Paper presentation at the National Association for Research in Science Teaching (NARST), Pittsburgh, PA.

Buck, G., **Cook, K.,** & Weiland, I. (2014, April). Making place-based SSI instruction discernible to urban middle school science teachers. Interactive poster/paper presentation at the National Association for Research in Science Teaching (NARST), Pittsburgh, PA.

Cook, K. & Buck, G. (2014, April). The effects of socioscientific inquiry on nature of science conceptions. Paper presentation at the American Educational Research Association (AERA), Philadelphia, PA.

Cook, K., Buck, G., & Weiland, I. (2014, January). Preparing teachers to integrate place-based socioscientific issues in urban classrooms**.** Paper presentation at the International Association for Science Teacher Education (ASTE), San Antonio, TX.

Cook, K. (2013, April). Utilizing photovoice to empower learners to connect with and care about socio-scientific issues. Poster presentation at the National Association for Research in Science Teaching (NARST), Rio Grande, Puerto Rico.

Cook, K. (2013, April). Engaging pre-service teachers in a community of practice through socio-scientific inquiry. Paper presentation at the National Association for Research in Science Teaching (NARST), Rio Grande, Puerto Rico.

Cook, K. & Weiland, I. (2013, January). Dialogue among educators: Understanding the intended goals and roles within a nonformal and formal educator partnership. Paper presentation at the International Association for Science Teacher Education (ASTE), Charleston, SC.

Cook, K. & Quigley, C. (2013, January). Utilizing photovoice as a tool to connect learners to science. Paper presentation at the International Association for Science Teacher Education (ASTE), Charleston, SC.****National Technology Leadership Initiative Award*** **Finalist**

Cook, K., Quigley, C. & Buck, G. (2012, March). Using to tool of photovoice to engage students in place-based socio-scientific inquiry. Paper presentation at the National Science Teachers Association (NSTA), Indianapolis, IN.

Cook, K. & Quigley, C. (2012, March). Using photovoice to empower pre-service teachers to connect science to their daily lives. Paper presentation at the National Association for Research in Science Teaching (NARST), Indianapolis, IN.

Cook, K. & Buck, G. (2012, March). The effect of studying socio-scientific issues on pre-service teachers' understanding of the nature of science. Paper presentation at the National Association for Research in Science Teaching (NARST), Indianapolis, IN.

Cook, K. & Buck, G. (2012, April). Pre-service teachers' experience in a community of practice through a place-based socio-scientific inquiry. Paper presentation at the American Educational Research Association (AERA), Vancouver, Canada.

Cook, K. & Buck, G. (2012, April). Democratic participation with scientists through place-based socio-scientific inquiry. Paper presentation at the American Educational Research Association (AERA), Vancouver, Canada.

<u>Refereed Regional Conferences</u>

Cook, K. (2025, January). The use of artificial intelligence in science teaching. Higher Education Science Teaching Summit. Louisville, KY.

Mahmood, A., Mahmood, S., **Cook, K.,** & Colen, J. (2024, November). Noyce Knights Scholars Program (NKSP): Preparing and supporting certified STEM teachers in Kentucky. Kentucky Academy of Science (KAS) conference. Frankfort, KY.

Cook, K., Mahmood, A., Colen, J., & Austin, M. (2024, November). Insights from a Noyce project on preparing STEM majors for teaching careers. Kentucky Science Teachers Association (KSTA). Bowling Green, KY.

Cook, K. (2024, January). Kentucky scholarship informs the field of science education. Higher Education Science Teaching Summit. Frankfort, KY.

Mahmood, A., **Cook, K.,** & Nygard, C. (2023, November). Noyce internship at the Kentucky Science Center: Inspiring STEM students to pursue a career in STEM teaching. Kentucky Academy of Science (KAS). Lexington, KY.

Xiang, L., **Cook, K.,** *Ousley, C., & Harmon, S. (2023, November). An instructional tool to help K-8 teachers identify anchoring phenomena for phenomenon-based science instruction. Kentucky Science Teachers Association (KSTA). Louisville, KY.

Austin, M., *Diaz, N., *Joseph, D., Mahmood, A., **Cook, K**. (2023, October). Preparing qualified STEM teachers for diverse classrooms in high-needs schools. Annual Robert Noyce Teacher Scholarship Program Conference. Sponsored by the National Science Foundation (NSF). St. Louis, MO.

Cook, K. (2022, November). Noyce Knights Scholars Program. Kentucky Science Teachers Association (KSTA). Richmond, KY.

Mahmood, A., **Cook, K.,** & *Nygard, C. (2022, November). Inspiring STEM students to pursue a career in STEM teaching: Summer internship in STEM education at the Kentucky Science Center. Kentucky Academy of Science (KAS). Morehead, KY.

Dobbins, J., Robinson, D., Courington, D. & **Cook, K.** (2022, November). Amgen Biotechnology Experience curriculum for High School Teachers. Kentucky Academy of Science (KAS). Morehead, KY.

*Nygard, C., **Cook, K.**, Mahmood, A. & Ivy, J. (2022, February). The Eureka factor: Student engagement with science as a motivation for preservice teachers. Midwest Annual Robert Noyce Teacher Scholarship Program Conference. Sponsored by the National Science Foundation (NSF). Cave City, KY.

Cook, K. & Mahmood, A. (2021, February). Community college collaboration in supporting future science and math teachers. Midwest Annual Robert Noyce Teacher Scholarship Program Conference. Sponsored by the National Science Foundation (NSF). Online Conference**.**

Franz, C., Hall-Bibb, D., Kerr, L., & **Cook, K.** (2020, April). Joining forces cross departmentally to broaden international perspectives in the Dominican Republic. A Celebration of Faculty Achievement. Bellarmine University, Louisville, KY.

Cook, K. & Mahmood, A. (2019, November). Strengthening STEM teacher education pathways in Kentucky with collaborative partnerships. Presentation at the Midwest Annual Noyce Conference, St. Louis, MO.

*Gibbons, S., *Nygard, C. **Cook, K.,** & Mahmood, A. (2019, November). Summer internship experience at the Kentucky Science Center for STEM students. Poster presentation at the Kentucky Academy of Science, Berea, KY.

*Hissong, G., *Nygard, C., **Cook, K.,** & Mahmood, A. (2019, November). Building community partnership with the Kentucky Science Center: Inspiring STEM students to pursue a career in STEM teaching. Poster presentation at the Midwest Annual Noyce Conference, St. Louis, MO.

Cook, K. & *Cox, R. (2018, November). Design thinking in STE(A)M learning. Paper presentation at the Kentucky Science Teachers Association (KSTA), Lexington, KY.

Cook, K. (2018, April). Researching design thinking in STEAM. A Celebration of Faculty Achievement. Bellarmine University, Louisville, KY.

Cook, K. & Bush, S. (2018, February). A structured and collaborative STEAM program: Operationalizing a professional development framework. Invited presentation at the Pennsylvania Training and Technical Assistance Network (PaTTAN), Hershey, PA.

Bush, S. & **Cook, K.** (2018, February). Authentic STEAM instruction to support and challenge each and every learner. Invited presentation at the Pennsylvania Training and Technical Assistance Network (PaTTAN), Hershey, PA.

Bush, S., **Cook, K.** & *Cox, R. (2017, November). Authentically and meaningfully integrating the "M" in STEAM: The mathematics matters! Paper presentation at the NCTM Regional Conference & Exposition hosted by the National Council of Teachers of Mathematics (NCTM), Chicago, IL.

Bush, S., **Cook, K.** & *Cox, R. (2017, October). Authentically and meaningfully integrating the "M" in STEAM: The mathematics matters! Paper presentation at the NCTM Regional Conference & Exposition hosted by the National Council of Teachers of Mathematics (NCTM), Orlando, FL.

Cook, K. (2017, April). Power of play in STEM. Invited panel presentation at the Girls STEM Collaborative Conference hosted by the Kentucky Science Center, Louisville, KY.

Cook, K. (2017, March). Lesson planning for the Kentucky science assessment system. Invited presentation for Bullitt County Instructional Coaches, Mt. Washington, KY.

Dinkins, E. & **Cook, K**. (2015, October). Embracing the space between: Leveraging the third space to promote student engagement and critical understanding. Student Success Conference. Bellarmine University, Louisville, KY.

Cook, K. (2015, May). How to use photovoice to conduct cross-cultural studies. Invited professional development for faculty. Centre College, Danville, KY.

Cook, K. (2015, April). Using photovoice to explore environmental sustainability across cultures. A Celebration of Faculty Achievement. Bellarmine University, Louisville, KY.

Cook, K. (2014, April). Pre-service teachers' use of photovoice to dialogue with and impact scientists in their community. International Congress of Qualitative Inquiry. University of Illinois at Urbana-Champaign, Champaign, IL.

Cook, K. (2014, March). How should we respond to climate change? Ethics panel on climate change. Ethics and Social Justice Center, Bellarmine University, Louisville, KY.

Cook, K. (2014, February). Making the transition from graduate student to tenure-track faculty. Annual School of Education Research Symposium. Indiana University, Bloomington, IN.

+Keller, D., **Cook, K.,** & +Myers, A. (2014, February). Bioethics in The Hunger Games: Evaluating the effects of genetic engineering through popular fiction. Hoosier Association of Science Teachers, Inc. (HASTI), Indianapolis, IN.

Cook, K. (2013, December). Reconnaissance in Costa Rica: Quality Enhancement Plan. Bellarmine University, Louisville, KY.

Cook, K. (2013, November). Innovative methods for exploring environmental sustainability. University of Louisville, Louisville, KY.

Bulinski, K. & **Cook, K**. (2013, November). An innovation in pre-service teacher training: Designing a college-level earth science course using The Next Generation Science Standards. Kentucky Academy of Science (KAS), Morehead, KY.

Buck, G., Trauth-Nare, A., **Cook, K.,** & Hudson, S. (2012, February). Forging the relationship to science content for adolescents in problem-based learning. Curriculum & Instruction Research and Creative Activity Symposium, Bloomington, IN.

Cook, K. (2012, September). Climate change symposium: Dealing with controversial issues in the classroom. Bellarmine University, Louisville, KY.

EXTERNAL AND INTERNAL GRANTS

Dobbins, J., Courington, D., **Cook, K.,** Carroll, T. & Ramirez, G. (2023-2026). Amgen Biotech Experience-Kentucky-Year 3. Amgen Foundation. Award #12857, $446,241. Funded. https://amgenbiotechexperience.net/kentucky/

Mahmood, A., **Cook, K**., & Colen, J. (Co-PI). (2022-2027). Noyce Knights; Increasing Highly Effective Science and Mathematics Teachers in Kentucky. National Science Foundation (NSF): Robert Noyce Teacher Scholarship Program. Award # 2149370. $1,450,000. Funded. https://www.bellarmine.edu/education/noyce-knights-scholars-program/

Kelley, R., Lein, A., & **Cook, K.** (Co-PI). (2022-2023). GenCyber Knights Middle School Student Camps. GenCyber Grant. National Security Agency (NSA) & National Science Foundation (NSF) Award # 21A-KY-BELL-UV-S1. $116,558. Funded. https://www.bellarmine.edu/education/gencyber/

Dobbins, J., Robinson, D., Courington, D. & **Cook, K.** (Co-PI). (2022-2023). Amgen Biotech Experience-Kentucky-Year 2. Amgen Foundation. Award # #12493. $137,445. Funded. https://www.bellarmine.edu/education/amgen-biotech-experience-professional-development-institute/

Cook, K. (PI). (2021-2022). Building an Integrative Pathway in STEM Education. Bonner Foundation $3,000. Funded.

Dinkins, E., Cahill, M., Ivy, J. & **Cook, K.** (Co-PI). (2021-2022). Bellarmine University New Teacher Support. ESSER I State Level Funding Kentucky Department of Education. $93,000. Funded.

Dobbins, J., Challener, R., Robinson, D., Courington, D. & **Cook, K.** (Co-PI). (2021-2022). Amgen Biotech Experience-Kentucky. Amgen Foundation. Award # #12493. $118,668. Funded. https://amgenbiotechexperience.net/kentucky/

Ivy, J., Kelley, R., **Cook, K.,** & Thomas, K. (Co-PI). (2021-2022). GenCyber Knights High School Teacher Camps. GenCyber Grant. National Security Agency (NSA) & National Science Foundation (NSF). Award # H98230-10-1-0242. $99,807. Funded. https://wwwtest.bellarmine.edu/education/gencyber/

Cook, K. (PI). (2020-2021). Education in the Dominican Republic: Joining forces cross departmentally to extend international offerings in education. Office of Academic Affairs & Study Abroad and International Learning. $2200. Funded.

Mahmood, A. & **Cook, K.** (Co-PI). (2019-2020). Strengthening STEM teacher education pathways in Kentucky with collaborative partnerships. Robert Noyce Capacity Building Grant. National Science Foundation (NSF). Award # 1852898. $125,000. Funded. https://www.bellarmine.edu/education/noyce-capacity-building-project/

Ivy, J., Kelley, R., **Cook, K.,** & Thomas, K. (Co-PI). (2019-2020). GenCyber Knights High School Teacher Camps. GenCyber Grant. National Security Agency (NSA) & National Science Foundation (NSF). Award # H98230-19-3-1-0174. $96,358. Funded. https://www.bellarmine.edu/education/gencyber/

Cook, K. (PI). (2019-2020). Reconnaissance in Dominican Republic: Development of an education Program. Office of Academic Affairs & Study Abroad and International Learning. $1775. Funded.

Cook, K. (PI). (2018-2019). Bloom elementary safe and fun playground. Lowe's Toolbox for Education. $5,000. Funded.

Cook, K. (PI). (2017-2018). Researching design thinking in STEAM. Faculty Development Funding. $3,000. Funded.

Cook, K. & Bush, S. (Co-PI). (2015-2017). Full STEAM ahead: Preparing elementary teachers to implement best-practices in integrated STEAM instruction. Mathematics and Science Partnership Grant (MSP), Kentucky Department of Education. federal funding with state flow-through, Award ID: #S366B150018. $395,592. Funded.

Cook, K. (PI). (2014-2015). Using photovoice to explore environmental sustainability across cultures. Faculty Development Funding. $3,000. Funded.

Cook, K. (PI). (2013-2014). Reconnaissance in Costa Rica: the development of two courses for Bellarmine University. Quality Enhancement Plan (QEP). $2,200. Funded.

Cook, K. (PI). (2010-2011). Can we *really* make a difference? Pre-service teachers' experience with socio-scientific issues & the nature of science through legitimate participation. Daisy Jones Fellowship. $5,000. Funded.

Cook, K. & Weiland, I. (Co-PI). (2009-2010). Students' cognitive engagement in a problem-based environmental unit. E. Wayne Gross Fellowship. $3,000. Funded.

Cook, K. (PI). (2008-2009). Evolution teaching practices: Striving for scientific literacy. E. Wayne Gross Fellowship. $4,000. Funded.

Cook, K. (PI). (2007-2008). Green thinking: An exploration into positive impacts humans make on the environment. Eli Lilly Pharmaceuticals. $8,000. Funded.

Cook, K. (PI). (2006-2007). Environmental service learning project, Mooresville Consolidated School Corporation. $2,000. Funded.

ADVISING AND MENTORSHIP

Advisory Roles

- Advisory Board for Dr. Christopher Randles, University of Central Florida, funded by NSF
  Probing at the Interpretation, Implementation and Assessment of Information Literacy in Science Education Classrooms by K-12 Teachers in the United States
- Advisory Panel for American Institute for Research
- Advisory Panel for Institute of Museum and Library Services
- Advisory Board for Dr. David Lee, Penn State, seeking DRK-12
  Supporting Students with Learning Disabilities in Science Settings
- Advisory Board for Dr. Vaughn Cooper, University of Pittsburgh, seeking DRK-12
  Evolving STEM Curriculum
- Advisory Board for Family Resource Centers in Jefferson County Public Schools
- Advisory Panel for Archdiocese of Louisville science curricula

Doctoral Chair

- Taylor Howell; Bellarmine University: Doctoral Chair, In Progress
- Leslie Giamo; Bellarmine University: Doctoral Chair, In Progress
  Using the Community Service Model of Canine-assisted Intervention to Improve Academic and Behavioral Outcomes of Residential Adolescents with Behavioral Issues
- Kathleen Sanchez; Bellarmine University: Doctoral Chair, In Progress
  K-12 Military Connected Students: A Policy Implementation Case Study Exploring Administrator, Counselor and Teacher Knowledge of the Interstate Compact on Educational Opportunity for Military Children in a Large Urban California K-12 Public School District
- Cody Nygard; Bellarmine University: Doctoral Chair, Complete
  Cultivating Connectedness to Nature in the College Classroom: A Consideration of Nature-Based Pedagogy in Undergraduate Education
- Carolyn Waters; Bellarmine University: Doctoral Chair, Complete
  Starting the Conversation: Race, Ethnicity, and Land at a Predominantly White Environmental Education Organization
- Richard Cox; Bellarmine University: Doctoral Chair, Complete
  Star Stuff: Romantic Understanding of Elementary Science and Mathematics through Imaginative STEAM Learning

Doctoral Committee Member

- Natalie Wynn-Abell; Bellarmine University: Committee Member: In Progress
  Laying The Foundation for Collaborative Leadership in a Public Full-Service Community School
- Andrea Perrin; University of Kentucky: Committee Member, In Progress
  Understanding High School Students' Identities in STEM
- Pradeepa Poudyal; Bellarmine University: Committee Member, Complete
  Impact of Audio-visually Enhanced Pedagogy on Student Performance, Satisfaction and Retention in the Asynchronous Anatomy & Physiology Classroom
- Heidi Cian; Clemson University: Committee Member, Complete
  Influence of Student Values, Knowledge, and Experience and Socioscientific Topic on Measures of Socioscientific Reasoning
- Liz Byron; Bellarmine University: Committee Member, Complete
  Teaching Non-cognitive Skills for College: A Qualitative Case Study of a Low-Income, High-Minority, Urban School District in Southeastern United States

- Patrick Englert; Bellarmine University: Committee Member, Complete
  Experiences Explored Through the Prism: Out Gay and Lesbian Pathways to University Presidency

Honors Advisor

- Cora Fields; Bellarmine University: Education Honors Thesis Advisor, In Progress
- Kaitlyn Kalehuawehe; Bellarmine University: Biology Honors Thesis Advisor, Complete
  Promoting Engagement through Socioscientific Inquiry at the Middle School Level
- Lexi Cox; Bellarmine University: Honors Thesis Reader, Complete
  Science and Writing and Apes, Oh My! An Iterative Interdisciplinary Approach to Argumentative Writing and Forensic Science in the Secondary English Classroom

COURSE DEVELOPMENT AND INSTRUCTION

2023-2024	EDUG 823: Curriculum Design for Nonprofit Agency (doctoral course), Bellarmine University
2022-2023	EDUG 684: Professional Leadership in STEAM (online asynchronous graduate course), Bellarmine University
2021-2023	EDUG 900: Dissertation course (graduate course), Bellarmine University
2020-2023	EDUC 444: Student Internship in Education (undergraduate course), Bellarmine University
2020-2024	EDUG 682: Transdisciplinary Teaching through STEAM (online asynchronous graduate course), Bellarmine University
2013-2024	EDUC 337: Elementary Science Methods (online synchronous and in-person undergraduate course), Bellarmine University
2012-2024	MAT 596/598: Middle and Secondary Science Methods (graduate course), Bellarmine University
2012-2024	EDUC 208: School Health, Nutrition, & Physical Education (online synchronous and in-person undergraduate course), Bellarmine University
2019-2020	EDUG 823: Designing Environmental Education Curricula for Students with Trauma (doctoral course), Bellarmine University
2018-2019	EDUG 823: STEAM Curriculum Design (doctoral course), Bellarmine University
2018-2019	EDUG 823: Photovoice Methodology (doctoral course), Bellarmine University
2017-2018	EDUG 823: Exploring Student Experiences in STEAM (doctoral course), Bellarmine University
2015-2017	EDUG 823: Best Practices in Integrated STEAM Instruction (graduate course), Bellarmine University
2013-2014	MAT 560: Elementary Mathematics & Science Methods (graduate course), Bellarmine

University

2013-2017 University Supervisor, Bellarmine University

2013-2014 IDC 401: Environmental Sustainability: Lessons from a Leader, Kentucky Institute for International Studies, KY (also coded as *Interdisciplinary Core (IDC): Junior Transcultural Experience* for Bellarmine University)

2013-2014 Pura Vida: Costa Rica's Approach to Health & Wellness, Kentucky Institute for International Studies, KY

2010-2011 Introduction to Scientific Inquiry (undergraduate course), Indiana University

2009-2010 Classroom Management (undergraduate course), Indiana University

2009-2010 Secondary Science Methods (undergraduate course), Indiana University

2008-2009 Saturday Science (undergraduate course), Indiana University

2003-2007 Advanced Placement Biology, Honors Biology, & General Biology, Mooresville High School, Mooresville, IN

2002-2003 Biology and Life Science Teacher, Edgewood High School, Ellettsville, IN

2000-2002 Associate Instructor, Indiana University

SERVICE TO THE PROFESSION

Service to Professional Organizations

a. Elected Positions

Kentucky Science Center Board of Directors (two consecutive terms), 2019-2028

Elections Committee, Association for Science Teacher Education, 2019-2021

b. Appointed Positions

Best STEM Books Panel, National Science Teaching Association, 2024-2026

Vice President-elect of the Kentucky Science Center Board of Directors, 2024-2026

Awards Committee/Co-Chair, Association for Science Teacher Education, 2022-2025

Chair of Visitor Experience and Operations Committee & Executive Committee for KY Science Center, 2021-2025

Education Professional Standards Board (EPSB) Program Review Committee, 2020-present

c. Editorial Review Board

Innovations in Science Teacher Education, 2016-2019

Journal for Science Teacher Education, 2013-2016

d. Guest Editor

Education Sciences special issue on "Enhancing STEM Education through Collaborative Learning Approaches," 2024

e. Conference Coordinator

Kentucky Science Teachers Association, 2022, 2023, 2024, 2025 Higher Education Science Teaching Summit

f. Program Reviewer

Kentucky Department of Education Office of Educator Licensure and Effectiveness

g. Strand Coordinator: Equity & Diversity

Association for Science Teacher Education, 2014, 2015, 2016, 2017 & 2018 Conferences

h. Invited Grant Proposal Reviewer

National Science Foundation (2023, 2024)

i. Invited Manuscript Reviewer

Journal of Biological Education, 2021-present

Investigations in Mathematics Learning, 2020-present

The Journal of Science Teacher Education: Pre-Service Teacher Education Strand, 2010-present

International Journal of Environmental and Science Education: Teaching and Teacher Education Strand, 2012-present

Science Education: Socio-scientific Issues Strand, 2013-present

Elementary Science Teacher Education (ESTE) within the *Journal of Science Teacher Education*, 2013

j. Invited Conference Proposal Reviewer

The Association for Science Teacher Education, Annual Meeting: Pre-Service Teacher Education Strand, 2010-present

National Association of Research in Science Teaching: Annual Conference: Environmental Education Strand, 2009-2012

National Association of Research in Science Teaching: Annual Conference: Pre-Service Teacher Education Strand, 2009-2012

American Education Research Association (AERA): Annual Meeting, Division K: Teaching and Teacher Education, Sections 1 & 7, 2008-2009

Service to University/Academia

2023-2025	Honor's Council, Bellarmine University Work with Honor's students across programs and select award recipients for Honors designations and scholarships
2021-2025	Chair of Undergraduate Student Advisory Board, Bellarmine University Initiated and developed feedback loop on student advisory board to support Education programs
2019-2025	International Liaison for the Office of International Studies, Bellarmine University Support student and faculty international travel

2023-2024	Faculty Affairs Committee, Bellarmine University Represent School of Education faculty on issues brought forth by faculty
2021-2022	Community Engagement Community of Practice, Bellarmine University Participated in a newly established CoP for community engagement
2021-2022	2BU Scholarship Review Committee Member, Bellarmine University Served as a reviewer for the prestigious 2BU Scholarship, which recognizes promising community college transfer students
2020-2022	Kentucky Information Technology in Educator Committee Represented Bellarmine on the KITEP committee, a working subgroup of Kentucky Association of Colleges for Teacher Education (KACTE) focused on the collection, management and reporting of data for assessment
2020-2021	Mentor to Project Director for Education and Psychology Symposium, Bellarmine University Advised on development and implementation of a symposium focused on supporting educators on supporting socioemotional health in schools
2020-2021	Transfer Review Committee Assisted in the development of a revised university-wide transfer policy
2020-2021	Module Course Delivery Committee Assisted in the development of a university-wide policy on offering module courses
2020-2021	Honors Awards Committee Member, Bellarmine University Served as a reviewer for the prestigious Honors awards, which recognize intellectual distinction among in-coming freshman
2019-2021	Developed Transfer Agreements for Community College Students Worked with community college liaison to guide the development of 2x2 plans for Elementary, Middle, and Secondary Education programs as well as all STEM 2x2 pathways for Jefferson Community and Technical College
2019-2022	Institutional Effectiveness Committee; Chair of Subcommittee Oversee university policies and practices on Institutional Effectiveness Serve as Chair of Integrity, Mission, Governance, and Transparency for SACSCOC-related initiatives
2019-2021	Developed Early Entry Master of Arts in Teaching Pathway Assisted in the development of Early Entry Master of Arts in Teaching pathways for all Education programs
2020-2021	COVID-19 Health and Wellness subcommittee, Bellarmine University Developed plans and implemented supports for supporting faculty and staff health and wellness during COVID-19
2020-2023	Program and Content Reviewer for Education Professional Standards Board Supported accreditation efforts of EPSB by reviewing Kentucky universities' education programs

2015-2023 Search Chair for Mathematics Education, Literacy Education, Special Education Faculty Hire, Clinical Teacher Educator, Administrative Assistants, Bellarmine University
Assisted in organized position posting and recruitment efforts, phone and on-site interviews, and election process for new faculty

2014-2016 Student Conduct Officer, Bellarmine University
Served on a panel to review and evaluate misconduct cases for Bellarmine students.

2014-2017 University Committee on External Awards, Bellarmine University
Recruit and coach students in developing applications for funding through awards such as the Fulbright, Truman, Cralle, Udall, and Goldwater.

2013-2015 Wilson Wyatt Fellowship of Academic Excellence Committee Member, Bellarmine University
Served as a reviewer for the prestigious Wyatt Fellowship, which recognizes a graduating senior's sustained intellectual distinction

2012-2024 Search Committee Member for Mathematics Educator, Teacher Leader, Special Education (served as Diversity Advocate), University Marketing, Biology Instructor, and Data Analyst, Bellarmine University
Assisted in organized position posting and recruitment efforts, phone and on-site interviews, and election process for new faculty

2013-2014 Development of Physics Certification for School of Education, Bellarmine University
Sought and secured EPSB approval for an initial certification for physics to be added to Bellarmine's Master of Arts in Teaching (MAT) degree offerings

2013-2014 Alignment of Science Education Courses to Science Courses, Bellarmine University
Worked with geology and biology professor to align course offerings for education majors and to update courses according to new science standards

2013-2014 MAT Benchmark Assessment Committee, Bellarmine University
Redeveloped benchmark assessment and rubric for required MAT progression

2013-2014 Study Abroad Course Developer & Recruiter, Bellarmine University
Developed Study Abroad course and worked alongside the International Programs for Study Abroad office and the Kentucky Institute for International Studies to recruit Bellarmine University students to study abroad

2013-2014 Curriculum Vitae Committee Member, Bellarmine University
Assigned to design a common template for faculty curriculum vitae for purposes of cohesion and streamlining tenure rank and promotion goals

2012-2013 National Council for Accreditation of Teacher Education (NCATE) Committee Member, Bellarmine University
Served on the Hospitality and Exhibit committees for the NCATE accreditation visitation

2011-2012 Co-Founder of School of Education Green Team, Indiana University
Worked with staff, faculty, and students to propose and facilitate sustainability-related projects at the School of Education

2011-2012 Goodwill Ambassador, Indiana University
Served as the liaison and representative for the Curriculum and Instruction department for the School of Education

2007-2012 Curriculum Developer, Bloomington, IN
Education consultant and curriculum developer for PBS website for grades 2-6, STEM education for K-12, and SSI-based instructional tools for K-12

2008-2009 Graduate and Professional Student Organization
Contributed graduate student perspective to curriculum and instruction issues

2008-2009 Beechler Award Committee
Reviewed and selected award recipients for pre-dissertation research award

2008-2009 Department Chair Search Committee for Curriculum and Instruction, Indiana University
Interviewed and selected nominees for Curriculum and Instruction department chair position

2008-2009 Publications Board Organizer, Indiana University, Bloomington, IN
Maintained publications board for faculty and graduate students

2007-2008 Education Consultant, Bloomington, IN
Assisted as an education consultant for animated short film for grades 3-5

2005-2007 Science Club Sponsor, Mooresville High School, Mooresville, IN
Led science and ecology club on campus for two years

2004-2005 UNITY sponsor and coordinator, Mooresville High School, Mooresville, IN
Led anti-smoking & alcohol student group, led summer workshops

2004-2005 Textbook Adoption Committee Team Member, Mooresville High School, Mooresville, IN
Reviewed & selected textbook for Biological Sciences

Service to Community

2019-2028 Kentucky Science Center Board Member, Louisville, KY
Currently serve on board as an ambassador to science education; Chair of Visitor Experience and Operations Committee (2019-2025); Vice President-elect for the Board (2024)

2020-2022 Virtual STEM Camp STEM Collaboration with University of Kentucky
Co-developed and implemented a Virtual STEM Camp Summer for 300+ students nationally each summer

2016-2018 Committee Member for Playground Initiative, Bloom Elementary

	Grant writing team member to secure funding to improve urban playground space for local school.
2015-2019	Advisory Council Member for Family Resource Center, Jefferson County Public School Service includes presenting research-based practices for elementary practitioners to council.
2015-2016	Science Task Force, Archdiocese of Louisville Assisted and consulted in district considerations concerning science reform.
2012-2013	Climate Symposium for Community, Bellarmine University Hosted professional development for K-12 teachers on dealing with socially controversial topics in the science classroom

AWARDS

NSF's Presidential Awards for Excellence in Science, Mathematics and Engineering Mentoring Nominee (2025)

Outstanding Scholar Educator Award (2024)

Faculty Impact Award (2023)

Faculty Travel Award (2020, 2019, 2013)

National Technology Leadership Initiative Award Finalist (2018, 2014)

Presidential Merit Award (2014, 2015, 2016, 2017)

Ambassador of Science Literacy (2015)

Dean's Award for *Excellence in Scholarship* (2014, 2015)

Innovations in Teaching Science Teachers Award (2014)

Outstanding Paper Award Nominee NARST Conference (2013)

Phi Mu's *Favorite Teacher* Nominee (2013)

National Technology Leadership Initiative Award Finalist (2013)

Herman B. Wells Graduate Fellowship Nominee (2012)

Goodwill Ambassador for Curriculum & Instruction (2011)

Daisy Jones Fellowship (2010)

E. Wayne Gross Fellowship (2009)

Project Learning Tree Program Facilitator (2008)

E. Wayne Gross Fellowship (2008)

Eli Lilly Endowment for Teacher Creativity (2007)

Excellence in Teaching Award (2006)

Academic Achievement Award (1999)

Alpha Lambda Delta Honors Society (1997)

Fernandus and Elizabeth Payne Academic Scholarship (1996)

Phi Eta Sigma Freshman Honors Society (1995)