SAHAR ALAMEH-NAVALESI, Ph.D.

Assistant Professor, STEM Education

University of Kentucky

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EDUCATION

August, 2020	Ph.D.	University of Illinois at Urbana Champaign Science Education, Curriculum and Instruction in the Math, Science, and Technology division *Dissertation Title: "*The Nature of Scientific Explanation (NOSE): Using a Philosophically Guided Framework to Examine the Nature and Quality of Scientific Explanations Constructed by Freshman College Students, Science Teachers, and Practicing Scientists" ***Dissertation selected as one of the three finalists of the 2021 NARST Outstanding Doctoral Research Award.*
June, 2013	M.A.	American University of Beirut, Lebanon Master's in Science Education
June, 2010	T.D.	American University of Beirut, Lebanon Teaching Diploma / Science Education/ Secondary
June, 2008	B.Sc.	Lebanese University Beirut, Lebanon Physics

PROFESSIONAL WORK EXPERIENCE

University of Kentucky

August 2020 - Present

Assistant Professor of STEM Education

- Member of Secondary STEM Education program faculty
- Member of Elementary STEM Education program faculty
- Supervisor secondary science student teachers in their student teaching placements
- Supervisor for elementary education practicum students in their field placements

Instructor for each of the following courses at least once:

- ***EDU 300:** Quantitative Reasoning (Pre-College Algebra)
- ***HON 152**: Honors STEM: Nature and Philosophy of Science
- EDU 395 – Independent Education Research (Chellgren Fellow)
- SEM 110: Introduction to STEM Education
- SEM 328: Teaching Science in the Elementary School
- SEM 422: STEM Education Methods II
- SEM 435 – STEM Student Teaching in Secondary School
- SEM 521/621: Foundations in STEM Teaching

- SEM 604: History of STEM Education
- SEM 610: Leadership in STEM Education
- SEM 634: Science Pedagogy in the Secondary School
- SEM 781 – Independent Study in STEM Education

Courses I also developed

June 2020 - 2023

Research Collaborator & Project Personnel, Summer STEM Camp, University of Kentucky

Supervised and collaborated on a virtual and in-person UK Summer STEM Camp locally and in collaboration with researchers from Iowa State University, California State University Long Beach, University of Central Florida, Bellarmine University, Auburn University, and Bowling Green State University (Ohio), local pre-service and in-service teachers, and other community members.

Summer 2021

Summer Ignite STEM outreach STEM coordinator, Rise STEM Academy for Girls, Summer 2021

Supervised a team of UK graduate and undergraduate students at in-person summer STEM program, with K-2 students in hands-on engaging integrated STEM experiences.

University of Illinois at Urbana Champaign

Aug 2016-2020

Instructor of record for each of the following courses at least once:

- C&I 451, Teaching Elementary Science II
- C&I 432, Investigative Approach to Elementary Mathematics Instruction*
- C&I 430, Teaching Children Mathematics*

*Listed on the: *List of Teachers Ranked as Excellent by their Students*

2017-2020

Managing Editor, *Journal of Research in Science Teaching* (*JRST*)
Doctoral Student Mentored Reviewer Initiative (DSMRI)

DSMRI is a new initiative at JRST that provides opportunities for doctoral students to review submitted manuscripts.

I oversaw the work of teams of doctoral students and their faculty mentors as they completed the review process. As of September 2020, 42 doctoral students from 11 institutions have now completed the initiative process.

Jan 2015- 2019

Editorial Associate, *Journal of Research in Science Teaching* (*JRST*)

I conducted pre-review of JRST submitted manuscripts before they go to external review (As of September 2020, I pre-viewed over 1,300 manuscripts)

2015 to 2017

Research Assistant, Embodied Learning Augmented through Simulation Theaters for Interacting with Cross-Cutting Concepts in Science (ELASTIC3S).

ELASTIC^{3}S is an NSF funded grant that seeks to create a new genre of technology-enhanced educational interactions by developing "simulation theaters for embodied learning" targeting crosscutting concepts highlighted in the NGSS.

2014-2015	**Research Assistant, Entrepreneurial Leadership in STEM Teaching and Learning (EnLiST)** EnLiST intends to develop and build the infrastructural elements necessary to sustain a state-wide Illinois community of highly qualified science Teacher Leaders, who will effectively contribute to the transformation of science teaching and learning throughout the K-12 educational continuum in their districts.

Other Professional Experience

2020- 2022	**Alef Education, Academic Consultant** • STEMCO lead advisor with the following responsibilities: - Oversee development of proof of concept for math and science frameworks. - Conducted thin slice prototyping and market research for US 3-5. - Developed interactive animated lessons for a research-based project in G3-5 math, in collaboration with the STEM Education Department at the University of Kentucky. Story Here.
2019- 2020	**Instructor, Physics. University Illinois at Urbana-Champaign (UIUC) Global Education and Training (GET) Program with King Abdullah University of Science and Technology (KAUST) Program** Taught online SAT Physics Subject Test for KAUST students in the Gifted and Talented Program at UIUC. Responsible for instruction of physics and mathematics SAT Subject and General tests for KAUST students at UIUC.
Fall 2013	**Instructor of Record, American University of Beirut** PHYS 210, Introductory Physics.
2013-2014	**High School Physics Teacher, Ahliah School, Beirut** Taught high school physics Lebanese system, and intermediate and advanced levels physics for American Program.
2013-2014	**Research Assistant, Developing Rehabilitation Assistance to Schools and Teachers Improvement (D-RASATI/USAID)** As a graduate research assistant during my MA at AUB, I collaborated with physics professors and other personnel in training high school physics teachers in public schools across Lebanon. Developed Physics Laboratory manuals for high school public schools.
2012-2014	**High School Physics and Chemistry Teacher, Modern Community School, Beirut** Taught physics and chemistry for grades 10 and 11 Lebanese Program Taught SAT Math
2010-2012	**Research Assistant, Science Education for Diversity (SED) Project launched by the University of Exeter's Graduate School of Education.** The Science Education for Diversity Project seeks to improve science education in Europe to respond effectively to the new cultural diversity of students through a research program run in collaboration with international partners from countries where science remains a popular career choice (Turkey, Lebanon, India and Malaysia).

GRANT FUNDING (AWARDED, ACTIVE&COMPLETED)

NSF PIPP Phase II: Theme 4: Pandemic ESCAPE: Environmental Surveillance Center for Assessing Pathogen Emergence (Berry, S., PI). Submitted: December 2023.
Role: Senior Key Personnel, Head of Education, Training and Outreach (11% effort)
Funding Requested: $18,000,000
I will oversee the activities of the Education and Workforce Development sector and will conduct research into effective methods for teaching information related to environmental surveillance to K-12 students. I will also supervise the overall Broader Impacts efforts within this proposal and contribute to reports, manuscripts, and presentations associated with the ESE work and related outputs. Website Here.

APPALACHIAN REGIONAL COMMISSION (ARC): Appalachian Regional Initiative for Stronger Economies (ARISE): Appalachian Water Infrastructure Workforce Development and Training Center (McNeil, D., PI). May 2024-May 2025
Role: Co-Investigator (13% effort)
Total Funding: $539,816
The team will conduct research on water workforce needs in central Appalachia, establish an advisory board and develop an implementation plan for a regional water workforce development and training center. Story Here.

NIH/NATIONAL INSTITUTE ON DRUG ABUSE: Wastewater Assessment for Coronavirus in Kentucky: Implementing Enhanced Surveillance Technology (Berry, S., PI). January,2021- Present
Role: Co-Investigator (No-Cost Extension)
Total Funding: $3,390,382
Developing a Middle and High School environmental health curriculum tied to wastewater surveillance and virology/COVID-19 designed to improve students' view of nature of science and socio-scientific literacy and promote their interests in and attitudes towards STEM. Story Here.

UNIVERSITY OF KENTUCKY RESEARCH AND CREATIVE ACTIVITIES SUPPORT. CURATE: Scaffolding Elementary Preservice Science Teachers for Meaningfully Constructing and Assessing Age-Appropriate Scientific Explanations (**Alameh, S., PI**). May 1, 2021 – April 30, 2022.
Role: Principal Investigator
Total Funding, $7,000
This project aimed at utilizing my newly developed instructional framework, the NOSE framework, to support elementary pre-service teachers in constructing and assessing age-appropriate scientific explanations. The study involved designing relevant resources and materials appropriate for elementary science and implementing them in elementary science methods courses at the STEM Education Department at UK.

GRANTS (SUBMITTED, PENDING)

McNeil, D. (PI), Evans, S. (co-PI), **Alameh, S. (co-PI)**, Ormsbee, L., (co-PI), Byrne, D. (co-PI), & Yost, S. (cop-PI). University of Kentucky, Department of Labor, Workforce Opportunity for Rural Communities. *Sustainable WaterWORCs in Appalachia Kentucky (SWAK).* Submitted: June, 2024. Funding Requested: 1,499,628.

GRANTS (SUBMITTED, NOT FUNDED)

Alameh, S., PI; Chunga, B., Co-PI; Holm, R., Co-PI (2024). *GEMSWASH-Malawi*: Girls in Engineering, Mathematics, and Science for Water, Sanitation, and Hygiene in Malawi. UKinSPIRE (Seeding Partnerships for International Research Engagement. Amount Requested: **$16,000**.

Hoover, A. (Co-PI); **Alameh, S. (Co-PI)** (2023). Substance Use Disorder: Prevention Education and Training for Underserved Youth. NIH SCIENCE EDUCATION PARTNERSHIP AWARD SEPA. **Funding Requested: $1,236,997**.

Hoover, A. (PI), Vickers-Smith, R. (PI) **Alameh, S. (Co-PI),** Carman, A. (Co-PI), & Hogg-Graham, R. (co-PI). (2021). Building Resilience into Climate Curriculum (BRiCC). NOAA Grant**: $451,682**.

Alameh, S. (PI), Fisher, M. (Co-PI), Jong, C. (Co-PI). (2021). Super STEM Saturdays for Engaging the Community. NSF AISL Grant. **$299,420**.

Mohr-Schroeder, M. (PI), **Alameh, S. (Co-PI),** Maiorca, C. (Co-PI), Roberts, O. (Co-PI) (2021). Developing and Testing Innovations: STEM Within: Promoting Positive Identities through Anti-racist and Gender Inclusive Virtual Integrated STEM Experiences. NSF TEST Grant. **$553,492**.

PUBLICATIONS

Peer Reviewed Journal Articles

Alameh, S., Hoover, A., Keck, J., Berry, S., Goodpaster, S., Tucker, S. (*In Press*) Bringing Pandemic Science to Classroom Partnerships: A Case Study of Building Public Health Capacity with a Rural Kentucky High School. *Public Health Reports Journal*.

Alameh, S., Chigwechokha, P., Chunga, B. A., Hoover, A. G., & Holm, R. H. (*Revise & Resubmit*). Integrating wastewater surveillance into science education using the 5E learning cycle in rural schools. *Science & Children.*

Park, W., Cullinane, A., Gandolfi, H**., Alameh, S.,** & Mesci, G. (2023). Innovations, challenges, and future directions in nature of science research: Reflections from early career academics. Research in Science Education, 1-22.

Alameh, S., Abd-El-Khalick, F., & Brown, D. (2023). The Nature of Scientific Explanation: Examining the perceptions of the nature, quality, and "goodness" of explanation among college students, science teachers, and scientists. Journal of Research in Science Teaching, 60(1), 100-135

Bush, S., Edelen, E., Roberts, T., Maiorca, C., Ivy, J., Cook, K., Tripp, O., Burton, M., **Alameh, S.,** Jackson, C., Mohr-Schroeder, M., Schroeder, C., McCurdy, R., Cox, R., (2022). Humanistic STE (A) M instruction through empathy: leveraging design thinking to improve society. Pedagogies: An International Journal, 1-20.

Alameh, S. & Goodpaster, S. (2022). Strategies and tools for success in inquiry-based online collaborative learning environments. In F. S. Allaire, & J. E. Killham (Ed.), Teaching and learning online: Science for early childhood and elementary grade levels.

*Hudson, L., Sharp, K., Prichard, C., Ickes, M. J., **Alameh**, S., & Vanderford, N. L. (2021). Cancer Curriculum for Appalachian Kentucky Middle and High Schools. Journal of Appalachian Health, 3(1), 45. Story Here.

Summers, R., **Alameh**, S., Brunner, J., Maddux, J. M., Wallon, R. C., & Abd-El-Khalick, F. (2019). Representations of nature of science in US science standards: A historical account with contemporary implications. Journal of Research in Science Teaching, (1- 35).

Alameh, S., & Abd-El-Khalick, F. (2018). Towards a Philosophically Guided Schema for Studying Scientific Explanation in Science Education. Science & Education, 27(9-10), 831-861.

Alameh, S., Morphew, J., Mathayas, N., & Lindgren, R. (2016). Exploring the relationship between gesture and student reasoning regarding linear and exponential growth. In C.-K. Looi, J. Polman, U. Cress, & P. Reiman (Eds.), *Transforming learning, empowering learners: Conference proceedings of the 12th International Conference of the Learning Sciences* (pp, 1006-1009). Singapore: ICLS.

Vlaardingerbroek, B., Shehab, S. S., & **Alameh**, S. (2011). The problem of open cheating and invigilator compliance in the Lebanese Brevet and Baccalauréat examinations. *International Journal of Educational Development, 31*(3), 297-302.

Peer Reviewed Book Chapters

Alameh, S., BouJaoude, S., & Navalesi, K., *(Accepted).* Social and Cultural Embeddedness of Science in Middle and High School Textbooks Across the Middle East and the United States of America". Peer Reviewed Chapter In: M. Shahat, S. Al-Balushi, & H. Fischer (Eds.), *Cross-cultural Comparison of Science Education.* IGI Global Scientific Publishing.

Goodpaster, S., & **Alameh, S.** (2022). Tracking clouds in the cloud. In F. S. Allaire & J. E. Killham (Eds.) Teaching and learning online: Science for early childhood and elementary grade levels.

Cook, K., **Alameh, S.,** Tripp, O., 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.

El-Mehtar, N., & **Alameh**, S. (2017). An analysis of the representation of nature of science in a chemistry textbook in the international baccalaureate diploma program. In C. V. McDonald, & F. Abd-El-Khalick (Eds.), Representations of nature of science in school science textbooks (pp. 170-187). London: Routledge.

Work in Progress

Alameh, S. & Abd El Khalick, F., (In Preparation). "The Nature of Scientific Explanation in Biology: Insights from NOSE Framework." In K. Kampourakis & R. Nehm (Eds.), Explanations in Biology Education (Book Project).

Alameh, S., Hoover, A., Tucker, S., Keck. J, Xiang, L., Knapp, A., High School Students' Information Sources and Learning Interests on Viruses and COVID-19: Exploring Links to Knowledge, Perceptions, and Changes Since Early Pandemic Studies. Paper to be submitted to *Disciplinary and Interdisciplinary Science Education Research*.

CONFERENCE, WORKSHOPS & WEBINAR PRESENTATIONS

Summers, R., **Alameh, S.**, Brunner, J., Abd-El-Khalick, F., Introduction to the VAScoR and Applying a Rubric to Qualify Responses to the Views of Nature of Science (VNOS) Questionnaire. Workshop submitted to the annual meeting of the National Association for Research in Science Teaching (NARST, 2025) Pre-Conference Workshop, Washington, DC.

Alameh, S., Hoover, A., Tucker, S., Smith, R., Exploring Students' Information Sources, Interests, and Perceptions on COVID-19 in a Rural US High School. Paper submitted to the annual meeting of the National Association for Research in Science Teaching (NARST, 2025), Washington, DC.

Alameh, S., Berry, S., Strike, D., Tucker, S., Ormsbee, L., McNeil, D., Roggenkamp, S., & Keck, J. (2024, August 15). *A multidisciplinary approach to Covid-19 wastewater assessment: Enhanced surveillance in Kentucky*. Presented at the NARST Virtual Event Series: International Perspectives on Multidisciplinary Research in Science Education, hosted by the NARST International Committee. Virtual Event.

Alameh, S. and Sampson, B., (March, 2024). Exploring Elementary Preservice Teachers' Scientific Explanations: A Comparative Analysis using NOSE Framework and C-E-R Model. Paper presented at the annual meeting of the National Association for Research in Science Teaching (NARST). Denver, Colorado.

Alameh, S., Goodpaster, S., Chalfant, J., (October, 2023). Science in Our Community: An Interdisciplinary STEM Unit on Viruses, Wastewater, and Public Health. Paper presented for presentation at the National Science Teacher Association conference (NSTA). Kansas City, Missouri.

Goodpaster, S., **Alameh, S.,** Chalfant, J., (October, 2023). "H-Two-Poo": Contextualizing High School Science Through Wastewater Testing and Public Health. Workshop proposal presented for implementation at the National Science Teacher Association conference (NSTA). Kansas City, Missouri.

Alameh, S., Chalfant, J., Tucker, S., Berry, S., Keck, J. Hoover, A., (June, 2023) Bringing Pandemic Science to the Classroom: Wastewater Testing and Environmental Health in Three-Dimensional Science Lessons. Paper presented in SciEd NIH Conference, Washington, DC.

Alameh, S., Sagan G., Hoover, A., Tucker, S., Keck, J. (November, 2022). *Bringing Pandemic Science to the Classroom: Engaging Students in Three-Dimensional Environmental STEM Learning*. Session presented in Kentucky Association for Environmental Education, Berea, KY.

Alameh, S. (September, 2022). *Make them Laugh: Using Humor in Math Class*. Session presented in National Council of Teachers of Mathematics (NCTM), Los Angeles, CA.

Alameh, S., Crowley, R., Lewis, R., Mirakhur, Z. (April, 2022) Lessons for Education from Heather McGhee's The Sum of Us. Session presented at Education As a Civil Rights: Truth, Justice, & Equity for All, Lexington, KY.

Alameh, S., & Goodpaster, S., (2022, January). *Teaching and Learning Online: Science for Elementary Grade Levels*. Session accepted for the 2022 Association for Science Teacher Education Conference, Greenville, SC.

Alameh, S. (2021, December). *WACKIEST Curriculum: An environmental Health Curriculum on Wastewater Surveillance and Virology*. Panelist on: Wastewater Surveillance – Monitoring COVID-19 to Protect Public Health - Online Webinar presented at the National Institute of Environmental Health Sciences.

Alameh, S. (2021, November). *WACKIEST Curriculum: An environmental Health Curriculum on Wastewater Surveillance and Virology*. Panelist on: Testing Wastewater for SARS-CoV-2 in Easter Kentucky – Online webinar presented at the American Water Works Association.

Alameh, S., Abd-El-Khalick, F., and Brown, D. (2021, April). *The nature of scientific explanation (NOSE): Examining the quality and 'goodness' of explanation among students, teachers, and scientists*. Paper accepted to the conference of National Association for Research in Science Teaching.

Alameh, S., Abd-El-Khalick, F., and Brown, D. (2019, August). *The nature of scientific explanation (NOSE): A philosophically-guided framework examining the nature and quality of scientific explanations*. Paper accepted to the conference of National Association for Research in Science Teaching, Portland, OR. Conference canceled.

Alameh, S., Abd-El-Khalick, F., (2018, March). *Scientific Explanation in Science Education: A Critical Review of Literature*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Atlanta, GA.

Alameh, S., Morphew, J. W., Sroczynski, S., Lindgren, R. (2018, April). *Role of an Embodied Science Simulation on Students' Gestures and Experimental Growth: A Case Study*. Paper presented at the annual meeting of the American Education Research Association, New York.

Morphew, J. W., **Alameh, S.**, & Lindgren, R. (2018, April). *Embodied ideas of scale: Learning and engagement with a whole-body science simulation.* Paper presented at the annual meeting of the American Education Research Association, New York.

Morphew, J. W., **Alameh, S.,** Sroczynski, S., Lindgren, R., & Kang, J. (2018, March). *An embodied simulation on student gesturing and science reasoning*. Paper presented at the annual meeting of the National Association for Research in Science Teaching. Atlanta.

Summers, R., **Alameh, S**., Brunner, J., Maddux, J., Wallon, R., & Abd-El-Khalick, F., (2017, April). *Nature of science treatment in U.S. science standards: A historical account with contemporary implications.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Antonio, TX.

Morphew, J., Mathayas, N., **Alameh, S**., & Lindgren, R., (2017, April). *Student understanding about exponential growth and the Richter scale following an embodied digital simulation.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Antonio, TX.

Mathayas, N., Morphew, J., Lindgren, R., **Alameh, S**. (2017, April). *When two equals ten times one: Facilitating reasoning about exponential growth with an embodied simulation.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Antonio, TX.

Alameh, S., Abd-El-Khalick, F., Waskan, J. (2016, April). *Constructing Scientific Explanations: How Philosophically Informed Models Can Guide Instruction, Learning, and Assessment in NGSS.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Summers, R., Maddux, J., Wallon, R., **Alameh**, **S**., Brunner, J., Myers, J., Pabuccu, A., Akyol, G., Silliman, C., Shehab, S., & Abd-El-Khalick, F. (2016, April). *The history of nature of science representation in state science standards: A systematic assessment.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Alameh, **S**., Linares, N., Mathayas, N. Lindgren, R., (2016, April). *The Effect of Students' Gestures on their Reasoning Skills Regarding Linear and Exponential Growth.* Poster presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Silliman, C., **Alameh**, S., Lindgren, R. (2016, April). *Discovering Children's Intuitive Ideas about Energy through a Full-Body Museum Game and Multi-Modal Study Design.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Baltimore, MD.

Hokayem, H., Jin, H., **Alameh**, S. & Yacoubian, H. (2015, April). *Using a learning progression to compare the feedback loop reasoning of elementary students in the US and Lebanon.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Chicago, IL.

Alameh, S., BouJaoude, S., (2014, April). *The revolution of instructional technology: Why it isn't happening? Cognitive tools in promoting physics learning*. Research session presented at the annual meeting of the Science and Math Educators Conference, Lebanon.

Alameh, S., BouJaoude, S., (2014, April). *The impact of using computers as cognitive tools on grade 10 Lebanese students' attitudes and conceptual understanding in physics.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Pittsburgh, PA.

Khishfe, R., BouJaoude, S., & **Alameh, S.**, (2014, September). *Effect of a PD program on teachers' classroom practices and students' perceptions.* Paper presented at the Conference of the European Science Education Research Association, Cyprus.

BouJaoude, S. Khishfe, R, & **Alameh, S.**, (2013, April). *Examining relationships among Lebanese students' conceptions of and attitudes toward science, career choices, religious affiliations and gender*. Paper presented at the annual meeting of the National Association for Research in Science Teaching, San Juan, Puerto Rico.

BouJaoude, S., Khishfe, R., **Alameh, S.**, Chunawala S., Chin, N.,S., van Griethuijsen, R., den Brok, P., Gencer, A., S., and Bag, H., Morgan, A., (2012, March). *Science education for diversity: An international perspective*. Symposium presented at the annual conference of the National Association for Research in Science Teaching, Indianapolis, Indiana.

BouJaoude, S., **Alameh, S**., and Radwan, N. (2011, November). *Uncovering the relationships between diversity indicators and views about science: results from the Science Education for Diversity Project*. Paper presented at the American University of Beirut, Beirut, Lebanon.

Dagher, Z., BouJaoude, S., & **Alameh, S.** (2010, March). *Analysis of nature of science coverage in Egyptian and Lebanese middle school science textbooks.* Paper presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA.

AWARDS & SCHOLARSHIPS

2024-2025 **Great Teacher Award**
Annually awarded by the University of Kentucky Alumni Association, this prestigious accolade recognizes six professors for their outstanding teaching. Recipients are celebrated for their superior knowledge, innovative classroom presentations, and deep concern for students, and receive a plaque and a cash award at a special luncheon or dinner.

2023-2024 **SSMA Outstanding Early Career Scholar Award**
This award recognizes outstanding early career contributions to the scholarship of science and/or mathematics education, within seven years of receiving a doctoral degree, with an exemplary and productive program of research related to science and/or mathematics education.

2023-2024 **UK-CARES Faculty Fellow in Science Communication**
Nominated & accepted as a University of Kentucky Center for Appalachian Research in Environmental Sciences (UK CARES) Faculty Fellow in Science Communication

Spring 2019 **Hardie Dissertation Award**
This award is a competitive award that offers financial support to advanced graduate students.

Spring 2018 **Hardie Travel Award Competition**
This award supports College of Education research activity by reimbursing travel and registration expenses for faculty and students presenting their work at major research conferences in their field.

Spring 2016 **Jhumki Basu Scholar Award**
The NARST Equity and Ethics Committee offers a Scholars Program for members from underrepresented groups within the U.S. designed to support and to nurture promising young scholars from underrepresented groups.

Spring 2013 **Dr. Fuad Said Haddad Award in Education**
This award is given to a Graduate Masters student in education with the best thesis as selected by the Education Department of the Faculty of Arts & Sciences at the American University of Beirut.

SERVICE TO THE PROFESSION

- Presenter, Collaborative Innovations in Pandemic Preparedness: The Role of Multidisciplinary Research in Center-Level Success, Spring 2025 Lunch and Learn Series, Vice President of Research, University of Kentucky. (March 12, 2025).
- Co-organizer & presenter, NARST Virtual Event: International Perspectives on Multidisciplinary Research in Science Education (August, 2024).
- Kentucky Science Center Wastewater Science Exhibit Advisory Committee Member (2023 - Present)
- Member of the NARST International Committee (2024-2027)
- Member of University of Kentucky Inclusiveness Committee (2020 - Present)
- Co-Chair University of Kentucky Inclusiveness Committee (2021- 2022)
- Member of UK College of Education Name Change Task Force (2020 - 2022)
- Co-organizer & member University of Kentucky Working Group on Ethics Equity, Inclusion, and Justice in the Mathematical Sciences (EEIJMS) (2021-present)
- Co-organizer & Moderator, Education and Civil Rights for the New Decade Conference (May, 2021)
- University of Kentucky Curiosity Fair, STEAM Education Booth (October, 2021)
- Reviewer, Educational Review (March 2025-Present)
- Reviewer, Public Health Research Journal (January 2025-Present)
- Reviewer, Discover Education Journal (2024-Present)
- Reviewer, Science and Education (SCED) Journal (2019 - present)
- Reviewer, Journal of Science Education and Technology (JOST). (2019 - present)
- Reviewer, Eurasia Journal of Mathematics, Science and Technology Education (EJMSTE) (2020-present)
- Reviewer, International Journal of Science and Mathematics Education (IJSME). (2023- present)
- Reviewer, School Science and Math Association Conference (SSMA). (2023 - present)
- Reviewer, National Science Teacher Association Conference (NSTA). (2023 - present)
- Reviewer, National Association for Research in Science Teaching Conferences (NARST). (2015 -present)
- Elected as a Graduate Student Conference Committee member at the University of Illinois at Urbana-Champaign. (2016 - 2017)
- Appointed to serve on the College Research Committee at the University of Illinois at Urbana Champaign. (2015 - 2016)
- Reviewer, International Conference of the Learning Sciences Conference (ICLS). (2016 - 2017)
- Organizing Committee member, Annual Science and Math Educators Conference (SMEC), American University of Beirut. (2010 - 2014)

PHILANTHROPIC & CHARITABLE INITIATIVES

Obtained a charitable gift donation of **$30,000** from Alef Education for the STEM Education department.

INVITED TALKS

2025	Invited by Mallory Conlon, Outreach Astronomer at Yerkes Observatory, Yerkes Future Foundation: Y.O Education Speaker Series Talk: "*Teaching Science Through Phenomena-based Approaches and Storylines*".
2021	Invited by Dr. Tamer Amin, Chair of the Department of Education at the American University of Beirut to run an online workshop entitled "*Moving Your Science Classroom Online: Practical Tools for Instruction and Assessment"*
2021	Invited by the American University of Beirut Center for Teaching and Learning at the American University of Beirut to run an online workshop entitled "*Using Dynamic Digital Tools to Enhance Teaching & Learning*".
2016	Invited by Dr. Rochelle Gutiérrez as a guest speaker to share my perspective and experience working with the Journal of Research in Science Teaching (JRST) at C&I 546, Mathematics, Science, and Engineering Proseminar II: Understanding the Publishing Process. University of Illinois at Urbana-Champaign.