Detailed Curriculum Vitae

December 30, 2023

NAME

Nealy (Neal) F. Grandgenett

Interim Dean, UNO College of Education, Health, and Human Sciences
Dr. George and Sally Haddix Community Chair of STEM Education
Professor of Mathematics Education, UNO Department of Teacher Education

OFFICE

211F Roskens Hall
University of Nebraska at Omaha, Omaha, NE 68182
Phone: (402) 554-2306; E-mail: ngrandgenett@unomaha.edu

SELECTED RESEARCH, TEACHING, AND SERVICE-RELATED RECOGNITIONS:

Note: Collaborative or team awards have an "" by them.*

UNO: Circle of Distinction Medal (Endowed Chair Recognition), 2022
NSF: National Science Foundation Advisory Board - Improving Undergraduate STEM Ed, 2020
*NU: University of NE Departmental Teaching Award *(Note: NU Departmental Award), 2020*
*NE: Omaha STEM Ecosystem Governor's Proclamation Nov. 8, 2020 *(Leader Recognition), 2020*
*UNMC: University of NE Medical Center Recognition for E-Learning (uBEATS Program), 2019
*APLU: Kellogg Foundation Community-University Engagement Team Award, APLU, 2016
NU: University of NE Outstanding Teaching and Instructional Creativity (OTICA) Award, 2016
NATM: Nebraska Association of Teachers of Mathematics Lifetime Achievement Award, 2013
*UNO: Campus Strategic Planning Team Award, 2012
UNO: Dr. George and Sally Haddix Community Chair of STEM Education, 2010 (Continuing)
UNO: Chancellor's Medal, 2010
UNO: Alumni Teaching Award for the College of Education, 2007
UNO: Peter Kiewit Distinguished Professorship, 2007, 2004
UNO: Award for Distinguished Research and Creative Activity (ADROCA), 2003
ISU: Iowa State University Alumni Achievement Award, 2003
*NRC: National Research Council Acknowledgement, 2002
NASA: NASA Mission Home Award, 1999
NE/AIM: Nebraska Information Technology Professor of the Year, 1998
UNO: Paul Kennedy Diamond Professorship, 1995
Educational Press: Educational Press Award for Distinguished Achievement, 1992

BIO PARAGRAPH:

Dr. Neal Grandgenett is the Interim Dean of the College of Education, Health, and Human Sciences (CEHHS), as well as the Dr. George and Sally Haddix Community Chair of STEM Education, at the University of Nebraska at Omaha, where he helps to oversee CEHHS college operations, shared governance, fiscal management, and community partnerships. As a faculty member he has taught undergraduate and graduate courses in interdisciplinary STEM learning, data driven decision making, program evaluation and research methods. Dr. Grandgenett has also co-led the UNO STEM Leadership team over the last decade in evaluating and undertaking instruction related initiatives and externally funded projects that have crossed the UNO campus, community colleges, the Omaha metropolitan community and the state of Nebraska. He also chairs UNO's Faculty Advisory Committee for the Office of Research and Creative Activity. His past leadership efforts at UNO have helped to establish dual pathways for P12 STEM teacher

certification that are collaborative across colleges and his community efforts have engaged thousands of teachers and other campuses in efforts such as learning initiatives with robotics, wearable technologies, biomechanics-related learning technologies, and online STEM curriculum. He works frequently and closely across P16 levels with special attention to mathematics education. His statewide work recently resulted in a Lifetime Achievement Award from the Nebraska Association of Teachers of Mathematics. In his 34 years at UNO, he has taught 202 classes, served on 54 doctoral dissertations and on 35 master thesis committees. He is an experienced and effective teacher, achieving a lifetime instructor average on UNO student evaluations of 4.88 on a five-point scale. Dr. Grandgenett's research and program evaluation interests align closely with his teaching experiences and focus on the improvement of technology-based learning in STEM Education, where he has authored 117 refereed articles or book chapters, 59 refereed conference proceedings papers, 2 books, and 3 research monographs. Collectively, these publications have achieved a h-index of 26 and have 4,650 citations as referenced in Google Scholar. He has made 151 local, national, and international conference presentations. Dr. Grandgenett has been a Principal Investigator or Co-Principal Investigator on $24,394,104 in grant funding, including National Science Foundation grants that cross five different NSF programs. He is a well-known program evaluator, with more than 30 large externally funded project evaluations over his career. Dr. Grandgenett's evaluation, teaching, research, and service efforts at UNO have resulted in various recognitions, including the NU Outstanding Teaching and Instructional Creative Activity Award, the UNO Chancellor's Medal, the UNO Alumni Teaching Award, the UNO Distinguished Research and Creativity Award, the UNO Peter Kiewit Professorship, the UNO Paul Kennedy Diamond Professorship, the Nebraska Technology Professor of the Year Award, and the NASA Mission Home Award. Dr. Grandgenett is also a U.S. Marine Corps Veteran (Sergeant) and a former Middle School Mathematics teacher. He is also a certified martial arts instructor and holds a 4th degree Black Belt in Tae Kwon Do.

h-Index and Author Citations on Google Scholar (As of January 2024)

My h-Index on Google Scholar: 26
Google Scholar: Citations of professional work: 4,650 author citations in other works

SELECTED VIDEO HIGHLIGHTS OF WORK

Video: UNO Access the Experts 2022:
How can students best prepare themselves for the future workforce in a STEM field?
https://www.unomaha.edu/news/access-the-experts-with-uno/neal-grandgenett.php

Video: About the UNO co-led Omaha STEM Ecosystem, 2022
https://www.youtube.com/watch?v=dPCP_bcVu_4

Video: UNO PI led Project: Biomechanics NSF Grant for Teachers:
https://youtu.be/fFlnRlE2lKI

Video: Nebraska Loves Public Schools Directed Event: Robots Take Over the Classroom:
https://iloveps.org/playlists/opspride-week-our-favorite-films-from-omaha-public-schools/robots-take-over-the-classroom

Blog: American Association for the Advancement of Science (AAAS)
Bulldozing the STEM Silos in Omaha While Engaging P-12 Teachers and Building Campus STEM Excellence
https://aaas-arise.org/2019/03/25/bulldozing-the-stem-silos/#3029

EDUCATIONAL BACKGROUND

Ph.D. in Education (Curriculum and Instruction), May 1989
Iowa State University, Ames, Iowa

Master of Science in Education with a Minor in Mathematics, May 1986
University of Nebraska at Omaha, Omaha, Nebraska

Bachelor of Science in Education, May 1983, Nebraska Certification in Mathematics and Social Studies, University of Nebraska at Omaha, Omaha, Nebraska

COLLEGE TEACHING EXPERIENCE

Professor of STEM/Mathematics Education, 1989 - present
University of Nebraska at Omaha

Educational Computing Instructor, 1986 - 1989
Iowa State University, Ames, Iowa

Adjunct Mathematics Instructor, 1986 - 1998
College of St. Mary, Omaha, Nebraska

COLLEGE ADMINISTRATIVE EXPERIENCE

Interim Dean, UNO College of Education Health and Human Sciences, July 2023 - Present
University of Nebraska at Omaha, Omaha, Nebraska 68182

Associate Dean, UNO College of Education Health and Human Sciences, 2021 – June 2023
University of Nebraska at Omaha, Omaha, Nebraska 68182

STEM Community Chair, UNO STEM Leadership Team, 2010 – Present
University of Nebraska at Omaha, Omaha, Nebraska 68182

Co-Founder, Omaha Citywide STEM Ecosystem, Omaha, Nebraska, 2016-Present
University of Nebraska at Omaha, Omaha, Nebraska 68182

Coordinator, Educational Technology Center, 1991 - 1994
College of Education, University of Nebraska at Omaha, Omaha, Nebraska

Coordinator, Computer Resource Center, 1986 - 1989
Instructional Resources Center, Iowa State University

PUBLIC SCHOOL TEACHING EXPERIENCE

Junior High Mathematics Teacher and Football/Track Coach, 1983 - 1985
Valley View Jr. High School, Westside Community Schools, Omaha, Nebraska

MILITARY EXPERIENCE

Sergeant, in charge of U.S.M.C. Manpower Management System, served 1976 – 1979
United States Marine Corps, Marine Barracks - Naval Weapons Station, Concord, California
Awarded Marine of Month, Four Meritorious Early Rank Promotions, Two Meritorious Masts

PUBLICATIONS (Refereed Articles and Chapters)

117. Kleinschmit, A., Rosenwald A., Ryder, E.F., Donovan, S., Murdoch, B., **Grandgenett, N.F**., Pauley, M., Triplett, E., Tapprich, W., Morgan, W. (2023) Accelerating STEM education reform: Linked communities of practice promote creation of open educational resources and sustainable professional development. *International Journal of STEM Education*, (10)16 https://doi.org/10.1186/s40594-023-00405-y.

116. Toby I., Williams J., Lu G., Cai C., Crandall K.A., Dinsdale E.A., Drew J., Edgington N.P., Goller C.C., **Grandgenett N.F**., Grant B.J., Hauser C., Johnson K.A., Jones C.J., Jue N.K., Jungck F.R., Kerby J., Kleinschmit A.J., Miller K.G., Morgan W.R., Murdoch B., Noutsios G., Nunez-Castilla J., Pauley M., Pearson W.R., Robertson S.D., Robic S., Rosenwald A., Seah Y.M., Shofner M., Sierk M., Siltberg-Liberles J., Smith T, Stover N.A., Tapprich W., Triplett E.W., Ryder E.F. (2022). Making change sustainable: Network for Integrating Bioinformatics into Life Sciences Education (NIBLSE) meeting review. *CourseSource. https://doi.org/10.24918/cs.2022.10*.

115. Stevenson, N., Sommers, A.S., **Grandgenett, N.**, Tapprich, W., McQuillan, J., Phillips, M., Jensen, R., & Cutucache, C.E. (2022). Replicating or Franchising a STEM Afterschool Program Model: Core Elements of Programmatic Integrity. *International Journal of STEM Education 9 (10), January 28, 2022. https://doi.org/10.1186/s40594-021-00320-0.*

114. Reding, T.L, Ostler, E., Cutucache, C., Moore, J.C., Grandgenett, N. Assessing a higher education interdisciplinary leadership group using social network analysis. *In Gamification and Social Networks in Education*, London, UK: MacroWorld Publishing (2022).

113. Sommers, A., Gomez Johnson, K. M., Jakopovic, P. M., Rivera, J., **Grandgenett, N. F**., Conrad, J. A., Tapprich, W., Cutucache, C. E. (2021). Salient experiences in student development: Impact of an undergraduate STEM teacher preparation program. *Frontiers in Education*, 6.

112. Reding, T. L., Ostler, C., Cutucache, C. E., Moore, C., **Grandgenett, N. F**. (2021). Assessing a Higher Education Interdisciplinary Leadership Group Using Social Network Analysis. In Uğur Bakan and Sheri Berkeley (Ed.), Gamification and Social Networks in Education (pp. 229-254). *MacroWorld.* https://macroworldpub.com/kitap_makale_detay.php?kitap_makale_id=41&kitap_id=30

111. Hodge, A., Rech, J., **Grandgenett, N.,** Gomez Johnson, K., (2021). Campus STEM Innovation from a Foothold of Mathematics: Lessons Learned from a Place Where it Happened. *Journal of STEM Education: Innovations and Research*. Volume 21 (3), October-December 2020.

110. Stevenson, N., Sommers, A., **Grandgenett, N.**, Tapprich, W., & Cutucache, C. (2021). NE STEM 4U: An 8-year reflection on building the next generation of the STEM workforce via professional development experiences. *The Informal Learning Review [Magazine]* no. 166. https://informallearning.com/storage/issues/166%20-%20March-April%202021.pdf

109. Kleinschmit, AJ, Ryder, EF, Kerby, JL, Murdoch, B, Donovan, S, **Grandgenett, N**., Cook, Siriwardana, C., Morgan, W., Pauley, M., Rosenwald, A., Triplett, E., Tapprich, W. (2021).

Community development, implementation, and assessment of a NIBLSE bioinformatics sequence similarity learning resource. *PLOS ONE* 16(9): e0257404. https://doi.org/10.1371/journal.pone.0257404.

108. Drew, J.C., **Grandgenett, N.,** Dinsdale, E., Vázquez Quiñones, L.E., Galindo, S., Morgan, W.R., Pauley, M., Rosenwald, A., Triplett, E.W., Tapprich, W., Kleinschmit, A.J. (2021). "There is more than multiple choice: crowd-sourced assessment tips for online, hybrid, and face-to-face environments. *J Microbiol Biol Educ* 2:e00205-21. https:// doi.org/10.1128/jmbe.00205-21.

107. Hiromichi, U., **Grandgenett, N**., Jawed-Wessel, S., Rosen, A, McGrath, M.L. (2021). *Assessment of injury history, severity, and medical care for athletes participating in Brazilian Jiu—Jitsu*. *International Journal of Athletic Therapy and Training*. https://doi.org/10.1123/ijatt.2020-0071.

106. Anderson, J., Schaben, C., **Grandgenett, N**., Buhs, E. (2021). Phenomenology of pre collegiate student out-of-school time scientific research. Accepted for publication in the Science Educator, a journal of the National Science Education Leadership Association. Winter/Spring 2021. Vol. 28. No. 1. Accessible at: https://www.nsela.org/science-educator-journal-

105. **Grandgenett, N.F.,** Jackson, R.J. (2020). Making the cut: One district's strategy for algebra placement, *NCSM Journal of Mathematics Education Leadership, Fall/Winter 2020, pages 31-39. [Note: This was a journal requested update and reprint of the 2007 issue publication, as due to COVID-19 the National Council of Supervisors of Mathematics felt it was a very strong article to update and share again.]*

104. Tapprich, W., Reichart, L., Simon, D.M., Duncan, G., McClung, W., Pauley, M.A. **Grandgenett, N**. (2020). An instructional definition and assessment rubric for bioinformatics instruction. *Biochemistry and Molecular Biology Education*. Volume 49, Issue 1. Https: //doi.org/10.1002/bmb.21361.

103. Williams, J.J., Drew, J.C., Galindo-Gonzalez, S., Robic, S., Dinsdale, E., Morgan, W., Triplett, E.W., Burnette, J.M, Donovan, S.S., Fowlks, E.R., Goodman, A., **Grandgenett, N.F**., Goller, C.C., Hauser, C., Jungck, J., Newman, J.D., Pearson, W., Ryder, E., Sierk, M., Smith, T.M., Tosado-Acevedo, R. Tapprich, W**.,** Tobin, T.C., Toro, A., Welch, L.R., Wilson M.A,. Ebenbach, D., McWilliams, M., Rosenwald, A.G., and Pauley M.A. (2019). Barriers to Integration of Bioinformatics into Undergraduate Life sciences Education: a National Study of US Life Sciences Faculty Uncover Significant Barriers to Integrating Bioinformatics into Undergraduate Instruction. *PLoS ON*E 14(11):e0224288. https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0224288&type=printable doi: 10.1371/journal.pone.0224288. PMID:31738797 PMCID: PMC6860448.

102. Nugent, G., Barker, B., Lester, H., **Grandgenett, N.**, Valentin, D. (2019). Wearable Textiles to Support Student STEM Learning and Attitudes. *Journal of Science Education and Technology.* Published online on May 11, 2019. Https://doi.org/10.1007/s10956-019-09779-7. Springer Publishing: New York, New York. *Note: full article at https://rdcu.be/bBdaf*

101. **Grandgenett, N.,** Cutucache, C., Tapprich, W., Dorn, B. (2019). Engaging P12 Teachers While Building Campus STEM Excellence. *An electronic blog invited from the American*

Association for the Advancement of Science (AAAS). January of 2019. Available from AAAS' ARISE (Advancing Research & Innovation in the STEM Education) at https://aaas-arise.org/2019/01/01/bulldozing-the-stem-silos/

100. Cutucache, C.E., Boham, T., Luhr, J., Sointu, E., Makitalo-Siegl, K., Karkkainen, S., Valtonen, T., **Grandgenett, N.F**., Tapprich, W. (2018). NE STEM 4U Afterschool Intervention Leads to Gains in STEM Content Knowledge for Middle School Youth. Cogent Education, Volume 5, Issue 1. DOI 10.1080/2331186X.2018.1558915. Available from: https://www.tandfonline.com/doi/full/10.1080/2331186X.2018.1558915

99. **Grandgenett, N.F. (2018).** Four personal insights from 30 years of program evaluation. *An electronic blog invited from the National Science Foundation's EvaluATE program*. It was posted on August 30, 2018. Available from *http://www.evalu-ate.org/blog/grandgenett-aug18/*.

98. **Grandgenett, N.F.,** Perry, P., Pensabene, T., Wegner, K., Nirenberg, R., Pilcher, P., Otterpohl, C. (2018). Building automation and the contextualization of information Technology: The journey of a midwestern community college in the U.S. *Journal of Education and Training Studies*, Volume 6, Issue 2. DOI: https://doi.org/10.11114/jets.v6i2.2959. Available from: http://redfame.com/journal/index.php/jets/issue/view/136.

97. Cutucache, C., Leas, H., **Grandgenett, N**., Nelson, K., Rodie, S., Shuster, R., Schaben, C., Tapprich, W. (2018). Genuine Faculty-Mentored Research Experiences for In-Service Science Teachers: Increases in Science Knowledge, Perception, and Confidence Levels. *Journal of Science Teacher Education*, 28(8), Pages 724-744. Available from https://doi.org/10.1080/1046560X.2017.1415615.

96. Jason J. Williams, Jennifer C. Drew, Sebastian Galindo-Gonzalez, Srebrenka Robic, Elizabeth Dinsdale, William Morgan, Eric W. Triplett, James M. Burnette, III , Samuel S. Donovan, Sarah C.R. Elgin, Edison R. Fowlks, Anya L. Goodman, **Nealy F. Grandgenett**, Carlos C. Goller, Charles Hauser, Jeffrey D. Newman, William Pearson, Elizabeth Ryder, Melissa A. Wilson Sayres, Michael Sierk, Todd M. Smith, Rafael Tosado-Acevedo, William Tapprich, Tammy C. Tobin, Arlín Toro-Martínez, Lonnie R. Welch, Robin Wright, David Ebenbach, Mindy McWilliams, Anne G. Rosenwald, and Mark A. Pauley, (2018). Barriers to Integration of Bioinformatics in Undergraduate Life Sciences Curricula *Sciences Advances.* https://doi.org/10.1101/204420 (doi:10.1101/204420).

95. Wilson Sayres, M.A., Hauser, C., Sierk, M., Robic, S., Rosenwald, A.G., Smith, T.M. Triplett, E.W., Williams, J.J., Dinsdale, E., Morgan, W., Burnette, J.M., Donovan, S.S., Drew, J.C., Elgin, S.C.R., Fowlks, E.R., Galindo-Gonzalez, S., **Grandgenett, N.F.,** Goller, C.C., Jungck, J., Newman, J.D., Pearson, W., Ryder, E., Tosado-Acevedo, R. Tapprich, W., Tobin, T.C., Toro, A., Welch, L.R., Wright, R., Ebenbach, D., Olney, K.C., McWilliams, M. and Pauley, M.A. (2018). "Bioinformatics Core Competencies for Undergraduate Life Sciences Education" *PLoS ONE* 13(6): e0196878. https://doi.org/10.1371/journal.pone.0196878 PMID 29870542 PMCID PMC5988330.

94. Leas, H.D., Nelson, K., **Grandgenett, N.**, Tapprich, W.E., Cutucache, C.E. (2017). Fostering Curiosity, Inquiry, and Scientific Thinking in Elementary School Students: Impact of the NE STEM 4U Intervention. *Journal of Youth Development*, 12(2). DOI 10.5195/jyd.2017.474.

93. Hongsermeier, A., **Grandgenett, N**., Simon, D. (2017). Modeling Evolution in the Classroom: An Interactive LEGO Simulation. *The American Biology Teacher, 79* 2, 128-131.

92. Nelson, K., Sabel, J., Forbes, C., **Grandgenett, N**., Tapprich, W., Cutucache, C. (2017). How do undergraduate STEM mentors reflect upon their mentoring experiences in a pre-professional training program engaging K-8 youth? *International Journal of STEM Education, 4,3,* https://doi.org/10.1186/s40594-017-0057-4.

91. Reding, T.E., Squires, A., **Grandgenett, N.,** Keller, S., Grandgenett, H. M., Hodge, A., Argo, C., Jacobberger, K. (2017). Determining quantity and strength of relationships between STEM camp participants and the mathematics student camp leaders. *International Journal of Research in Education and Science (IJRES), 3,* 171-179.

90. Jeon, H., Mc.Grath, M., **Grandgenett, N**., Rosen, A. (2017). Clinical measures and their contribution to dysfunction in individuals with patellar tendinopathy. *Journal of Sports Rehabilitation*. Nov 15:1-22, DOI# 10.1123/jsr.2017-0196.

89. Nugent, G., Barker, B., Welch, G., **Grandgenett, N**., Wu, C., Nelson, C. (2016). A Model of Factors Contributing to STEM Learning and Career Orientation. *International Journal of Science Education, 37* 7, 1067-1088.

88. Cutucache, C.E.; Luhr, J.L., Nelson, K.L.; **Grandgenett, N.F**., Tapprich, W.E., (2016). NE STEM 4U: An out-of-school time academic program to improve achievement of socioeconomically disadvantaged youth in STEM areas. *International Journal of STEM Education*. (STEM-D-15-00011R3).

87. Tapprich, W., **Grandgenett, N**., Leas, H., Rhodie, S., Shuster, R., Schaben, C., Cutucache, C. (2016). Enhancing the STEM Ecosystem through Teacher Researcher-Partnerships. *The Metropolitan Universities Journal*, Volume 27 (1), 2016, pages 71-85.

86. Barker, B.S., Nugent, G., **Grandgenett, N**., Keshwani, J., Nelson, C., Leduc-Mills, B. (2016). Developing an Elementary Engineering Education Program through Problem-Based Wearable Technology Activities. In Janet Holland's (Editor) Wearable Technology and Mobile Innovations for Next-Generation Education, IGI Global: Hershey, PA.

85. Orndorf, H., Morgan, B., **Grandgenett N**., Pauley M., Ryder, L., Sierk, M., Wright, R., Rosenwald, A, Dinsdale, L., Triplett, E., Donovan, S. (2016). Incubators: A community-based model for improving the usability of bioinformatics learning resources, *QUBES*, https://qubeshub.org/resources/931.

84. Nugent, G., Barker, B., **Grandgenett, N.** (2015). Robotics camps, clubs, and competitions: Results from a US robotics project. *Robotics and Autonomous Systems Journal*. doi: 10.1016/j.robot.2015.07.011.

83. Dinsdale, E., Elgin, S., **Grandgenett, N**., Morgan, W., Rosenwald, A., Tapprich, W.,Triplett, E., and Pauley M. (2015) A Network for Integrating Bioinformatics into Life Sciences Education, *CBE--Life Sciences Education*,14(4): le3. doi: 10.1187/cbe.15-06-0123.

82. **Grandgenett, N.,** Edick, N., Boocker, D., Ali, H., Hodge, A., Dorn, B., Cutucache, C. (2015). Community Chairs as a Catalyst for Campus Collaboration. *Metropolitan Universities Journal, 26* 1, 52-72.

81. Nugent, G., Barker, B., Welsh, G., **Grandgenett, N.** (2015). A Model of Informal STEM Learning and Career Orientation (Published). *International Journal of Science Education*, 37(7), 1067-1088. **DOI:** 10.1080/09500693.2015.101786.

80. **Grandgenett, N**., Thiele, L., Pensabene, T., McPeak, B. (2015). It Takes a Village to Raise an IT Project: Suggestions on Collaboration from a Ten Community College Consortium (Published). *Community College Journal of Research and Practice*.

79. **Grandgenett, N**., Matthews, M., Adcock, P. (2014). Teacher certification through the math department: One institutions journey. *Mathematics and Computer Education, 48* (3), 227-236.

78. Hodge, A., Love, B., **Grandgenett, N**., Swift, A. (2014). A flipped classroom approach: Benefits and challenges of flipping the learning of procedural knowledge. Chapter 4, *Online learning: Common misconceptions, benefits and challenges*. Edited by Lowenthal, P.R., York, C.S., Richardson, J.C., Hauppauge, NY: Nova Science Publishers. ISBN: 978-1631171949.

77. Love, B., Hodge, A., **Grandgenett, N**., Swift (2014). Student learning and perceptions in a flipped linear algebra course. *International Journal of Mathematical Education in Science and Technology*, 45(3), pages 23-30.

76. Chen, B., Gilmore, A., **Grandgenett, N**., Ostler, E., Sash, R., Detloff, H. (2014). STEM Outreach at the University of Nebraska, Computer and Electronics Engineering Department. *Electronics and Computer Engineering Source Magazine, April 2014*.

75. Barker, B. S., Nugent, G. G., **Grandgenett, N. F**. (2013). Examining fidelity of program implementation in a STEM-oriented out-of-school setting. *International Journal of Technology and Design Education*. August 2013. http://http://link.springer.com/article/10.1007%2Fs10798-013-9245-9.

74. Barker, B., Nugent, G., **Grandgenett, N. F**., Adamchuk, S. (2012), Robots in K-12 education: A new technology for learning, Hershey PA: IGI Global. ISBN 13:9781466601826.

73. **Grandgenett, N. F.,** Ostler, C., Topp, N., Goeman, R., (2012). Robotics and problem-based learning in STEM formal educational environments. A chapter published in Robots in K-12 education: A new technology for learning, edited by Barker, B., Nugent, G., Grandgenett, N. F., Adamchuk, S. Hershey PA: IGI Global, pp. 94-119.

72. Adamchuk, S., Barker, B., Nugent, G., **Grandgenett, N. F.**, Patent-Nygren. (2012). Learning geospatial concepts as part of a non-formal education robotics experience. A chapter

published in Robots in K-12 education: A new technology for learning, edited by Barker, B., Nugent, G., Grandgenett, N. F., Adamchuk, S. Hershey PA: IGI Global, pp, 284-300.

71. Barker, B., Nugent, G., **Grandgenett, N. F.** (2012). The impact of educational robotics on student STEM learning, attitudes, and workplaces. A chapter published in Robots in K-12 education: A new technology for learning, edited by Barker, B., Nugent, G., Grandgenett, N. F., Adamchuk, S. Hershey PA: IGI Global, pp. 186-203.

70, Hofer, M., **Grandgenett, N. F**. (2012). TPACK development in teacher education: A longitudinal study of preservice teachers in a secondary M.A.Ed. program. *Journal of Research on Technology in Education*, 45, 1, 83-106, April 2012.

69. Harris, J. B., Hofer, M., **Grandgenett, N.**, Blanchard, M., Schmidt, D. M., Yates, C. (2011). Instructional Planning Using Curriculum-Based Activity Type Taxonomies. *Journal of Technology and Teacher Education*, Vol. 18, No 4., pg. 573-606. Also available from the website of http://www.aace.org/pubs/jtate/.

68. **Grandgenett, N. F**., Harris, J., Hofer, M. (2011). An activity-based approach to technology integration in the mathematics classroom. *Journal of Mathematics Education Leadership*, by the National Council of Supervisors of Mathematics. Spring, 2011.

67. Harris, J.B., Hofer M., **Grandgenett, N.F**, Blanchard, M., Schmidt, D., Young, C. (2011). Instructional Planning Using Curriculum-Based Activity Type Taxonomies. *Journal of Technology and Teacher Education*, Vol. 19, No 1. pg. 35-44.

66. Rech, J., Matthews, M., **Grandgenett, N**. (2010). The impact of content courses on pre-service elementary teachers' mathematical content knowledge. Issues in Undergraduate Mathematics Preparation of School Teachers: The Journal (Content), Volume 1, December 2010. Available online at: www.k-12prep.math.ttu.edu.

65. Nugent, G., Barker, B., **Grandgenett, N**., & Adamchuk, V.G. (2010). Impact of robotics and geospatial technologies interventions on youth STEM learning and attitudes. Published in *The Journal of Research on Technology in Education*, Volume 42, Issue 4, Pages 391 to 408.

64. Barker, B., **Grandgenett, N**., Nugent, G., Adamchuk, V. (2010). Pairing educational robotics with geospatial technologies in informal learning environments. *Journal of Youth Development*, 5(2).

63. Barker, B., **Grandgenett, N.**, Nugent, N., Adamchuk, V. (2010). Robots, GPS/GIS, and programming technologies: The power of "digital manipulatives" in youth extension experiences. Published in the *Journal of Extension*, Volume 45, Number 5, 2010. Available at: http://www.joe.org/joe/2010february/a7.php.

62. Richter-Egger, D.L., **Grandgenett, N.F.,** Hagen, J.P., Laquer, F.C., Shuster, R.D. (2010). Improving student attitudes about science by integrating research into the introductory chemistry laboratory: Interdisciplinary drinking water analysis. *Journal of Chemical Education*. Volume 87 (8), pp. 862-868.

61. Harris, J., **Grandgenett, N**., & Hofer, M. (2010). Testing a TPACK-based technology integration assessment rubric. In C. D. Maddux (Ed.). *Research highlights in technology and teacher education 2010* (p. 323-331). Chesapeake, VA: Society for Information Technology & Teacher Education (SITE). Available: http://activitytypes.wmwikis.net/Presentations

60. Barker, B., **Grandgenett, N**., Nugent, G., Adamchuk, V. (2010). Pairing educational robotics with geospatial technologies in informal learning environments. *Journal of Youth Development*, 5(2).

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1. Barker, B., Nugent, G., **Grandgenett, N. F**., Adamchuk, S. (2012), *Robots in K-12 education: A new technology for learning*, Hershey PA: IGI Global. ISBN 13:9781466601826.

NEW INVENTION OFFICIAL DISCLOSURES (2018 Indexed by UniMed)

Note: Co-disclosed with Drs. C. Cutucache and B. Tapprich

6. NIN No. 20079 "Design of an empirical formula or systematic method for undergraduate student success, with retention to degree." 2020
5. NIN No. 18098 "The NE STEM 4U Program" 2018
4. NIN No. 18100 "The Teacher-Researcher Partnership Program: A professional development experience for science teachers through mentored, genuine-research experiences with translation to classroom"
3. NIN/© No. 18099 "NE STEM 4U: Tri-fold model of teaching, research, and mentorship for undergraduate and graduate students"
2. NIN/© No. 18101 "Teacher-Researcher Partnership Program (TRPP): A professional development model for science teachers through mentored research experiences with translation to classroom"
1. NIN/© No. 18102 "NE SciLEAD: Nebraska Science Learning, Education, Assessment and Design"

MONOGRAPHS AND REPORTS (Indexed)

3. **Grandgenett, N.,** Ostler, E., Gomez Johnson, K., Reding, T., Flesch, M., Hatt, C., Boyer, W. (2020). *The Nebraska mathematics readiness project: Year 2 evaluation report.* Published as a Statewide Technical Report by the Peter Kiewit Foundation and the University of Nebraska at Omaha. Retrieved from (being processed by the UNO Library).

2. **Grandgenett, N**., Abdouch, R. (*Editors)* (2001). Lessons learned: A retrospect of the Community Discovered Project. Omaha, NE: Westside Community Schools. (ISBN 0-9711448-0-X)

1. **Grandgenett, N**., Bishop, M., Shroder, J., Topp, N., Graham, B., Bowen, B. (2001) The University of Nebraska at Omaha Center for Space Data Use in Education: A concept. UNOAI Report 2000-4, UNO Aviation Monograph Series 2000.

PUBLISHED CURRICULUM GUIDES

8. Barker, B., Nugent, G., **Grandgenett, N.,** Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 1 Circuitry - Leader's Guide. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-1-circuitry-leaders-guide.

7. Barker, B., Nugent, G., **Grandgenett, N**., Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 1 Circuitry - Engineering Design Notebook. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-1-circuitry-engineering-design-notebook.

6. Barker, B., Nugent, G., **Grandgenett, N.,** Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 2 Sewing & Microcontrollers - Leader's Guide. https://shop4-h.org/products/weartec-2-sewing-microcontrollers-leaders-guide.

5. Barker, B., Nugent, G., **Grandgenett, N.**, Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 2 Sewing & Microcontrollers - Engineering Design Notebook. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-2-sewing-microcontrollers-engineering-design-notebook.

4. Barker, B., Nugent, G., **Grandgenett, N.**, Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 3 Programming - Leader's Guide. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-3-programming-leaders-guide

3. Barker, B., Nugent, G., **Grandgenett, N.,** Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 3 Programming - Engineering Design Notebook. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-3-programming-engineering-design-notebook.

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1. Barker, B., Nugent, G., **Grandgenett, N.**, Keshwani, J., Nelson, C., O'Connor, A., Valentine, D. (2018). WearTec 4 Design Challenges - Engineering Design Notebook. Bethesda, MD. 4-H Council. https://shop4-h.org/products/weartec-4-design-challenges-engineering-design-notebook.

RESEARCH ABSTRACTS (Indexed)

16. Richter-Egger, D., **Grandgenett**, N., Hagen, J.P., Laquer, F.C., Shuster, R. (2020). Preludes to a CURE: Brief undergraduate research experiences in the 1st semester of general chemistry laboratory. Abstracted in the 2020 Biennial Conference on Chemical Education, Symposium on Course-embedded research experiences in the first year and second year curriculum. ScholarOne Abstracts, Control ID: 3406676.

15. Servellon, S., Brohimer, R., **Grandgenett, N**., Tapprich, W., Cutucache, C., (2016). NE STEM 4U: A pre-professional training program for undergraduates through teaching, research, and mentorship with a focus on pre-service teacher training., International Symposium on New Issues in Teacher Education

(ISNITE), Savonlinna, Finland August 31, 2016.

14. Hongsermeier, A., Simon, D., Reichart, L., Falconer, J., **Grandgenett, N**., (2016). Teaching Evolution: An Interactive LEGO® Simulation, Council for Undergraduate Research Annual Conference, Asheville, North Carolina.

13. Melander, J., Barker, B., **Grandgenett, N**., Nugent, G. (2016). WearTec: Empowering Youth to Create Wearable Technologies. 16th IEEE International Conference on Advanced Learning Technologies (ICALT 2016), Austin, Texas.

12. Shuster, R., **Grandgenett, N**., Cutucache, C., Tapprich, B., Rhodie, S., (2015). Using Authentic Research Experiences to Improve STEM Education in the K-12 Environment, Geological Society of America Annual Conference, Baltimore, Maryland.

11. Duncan, G., McClung, B., Reichart, L., Simon, D., Tapprich, B., **Grandgenett, N**., Pauley, M., (2015). Laboratories for Integrating Bioinformatics into the Life Sciences, Association for Biology Laboratory Education Conference, Lincoln, Nebraska.

10. **Grandgenett, N**. (2013). Advanced Technological Education NSF Principal Investigators Conference, National Science Foundation, Washington, D.C., Collaborating Across Community Colleges for Regional Impact, October 25, 2013.

9. Heckenbach, K., McGrath, M., Metal-Corbin, J., **Grandgenett, N**. F (2013). The effects of breathing control on cardiopulmonary and subjective measures in collegiate intermediate to advanced female modern dancers. International Association for Dance Medicine and Science 23rd Annual Meeting. October 18, 2013.

8. Shuster, R., **Grandgenett, N.F.** (2008). Initial results of an online Earth System Science course offering at the University of Nebraska at Omaha. An abstract published as Paper #ED11A-0576 in the proceedings of the American Geophysical Annual conference, San Francisco, California.

7. Shuster, R., Richter-Egger, D., Hagen, J., Laquer, F., **Grandgenett, N**. (2007). Formal Abstract: Interdisciplinary Research in Introductory Science Classes. Abstract in the proceedings of the 2007 Geological Society of America Annual Meeting, October 28-31, in Denver, Colorado.

6. Dennison, D., Corbin, D., **Grandgenett, N.F.,** & Sharma, M. (2001). Formal Abstract of Research: Internet use policies in the public schools of Nebraska: Implications for health education. American Public Health Association, January 2001.

5. **Grandgenett, N.F.** & Rundqist, D. (UNL). (2000). Formal Abstract of Research: The good earth meets the great beyond. Research Quarterly, 8. Lincoln, NE: University of Nebraska at Lincoln Office of Research.

4. Topp, N., **Grandgenett, N.F.**, Ostler, E. (1999). Formal Abstract of Research: Nebraska Internet evaluation. (ERIC ED 429 559)

3. Topp, N., **Grandgenett, N. F.**, Mortenson, R. M., Ostler, C.E. (1996). Formal Abstract of Research: Nebraska K-12 Internet Evaluation Progress. (ERIC ED 392 394)

2. **Grandgenett, N. F.**, Topp, N., Pawloski, B., (1995). McMillan magnet school: A case history of a school acquiring a critical mass of computer technology and Internet connectivity. Formal Research Abstract for McREL (Mid Continent Regional Education Laboratory). (ERIC ED 392 398)

1. Russell, J., Lickteig, M. & **Grandgenett, N.F.** (1992). The relationships between school personnel attitudes about at-risk students, at-riskness of the student population and effort expended for at-risk students. Formal Research Abstract for: Phi Delta Kappa. (ERIC Document 344 876)

PUBLISHED SOFTWARE REVIEWS (Indexed; N=79)

Published Software Reviews, Mathematics and Computer Education, 1990 to 2016.

Selected Reviews Include: Mathematica, Object Logo - Student Edition, Geometry Inventor, SPSS, Serius Developer, MathWriter, Geometer's Sketchpad, Minitab, Think Pascal, MiniCad+ 2.0, WingZ, Microsoft Works, Algebra Homework Tutor, Theorist, Microsoft Excel 2.2, and MuMath-80, Object Logo, and Persuasion, Math Test Builder, Points to Planes, Alge-Blaster, Fool Proof, C++, Math Connections Algebra, MacinTax., Geometry Concepts, Cliffs Studyware for Algebra I, The Geometric Supersupposer, Adobe Pagemaker, Statistics Workshop, Claris Impact 2.0, Mathematics Test Builder, Tools of Math, MacNumerics, Zap-A-Graph, SureMath, Microsoft Office, Adobe Pagemill, Mac OS8, Geometry Concepts, Cliffs Studyware for Algebra, Claris Homepage, Symantec Antivirus Program, Timbuktu Pro, Adobe Photoshop, Cliffs Math Bundle, EndNote, Norton Utilities, Virtual PC, Secondary Math Toolkit, Adobe Illustrator, Norton AntiVirus, MacLinkPlus Deluxe, Norton AntiVirus, MacLinkPlus Deluxe, Cliffs StudyWare for the GRE, MapBlast, NetBarrier, Math Forum, Textbridge Pro, Conflict Catcher, WebMath, ViaVoice. Microsoft Office Keyboard, Stuffit Deluxe, National Library for Virtual Manipulatives and Norton System Works, Eisenhower National Clearinghouse Website, National Library of Virtual Manipulatives Website, Norton Systemworks, CorelDraw Graphics Suite, Meridian Color GPS Device Software, SPSS Graduate Pack, Hotmath, Math Advantage, Key Math Education Software Bundle, CoolMath, Notebook, MathType, SatMath Pro, Calculus in Motion, NCTM Online, Geogebra, MathVids, Geometry Expressions, Adobe Acrobat Professional, Annenberg Media Learner.org, Doodle, Inspire Data, Hippocampus, DropIO. Poll Everywhere, Dropbox, TED: Ideas Worth Spreading, Space Math, Tools and Techniques ToolBox.

EDITORSHIP

Software Review Editor, Mathematics and Computer Education Journal, 1990 - 2016.
This journal is an international journal in mathematics education and often showcases new "state of the art" technologies in mathematics education. It is indexed in numerous countries, including the United States, England, Belgium, Russia, Germany, Netherlands, Switzerland, Spain, Canada, Japan, Malaysia, Taiwan, Italy, Brazil, Austria, India, Israel, Norway, South Africa, and New Zealand.

EDITORIAL BOARDS AND REVIEW PANELS

NASA Mission Support Directorate, Space Science Curriculum Review Panels, 2008-present
Review Board Member: *Innovations in Education and Training International*, 1999 – present.
Review board member, *Journal of Computing in Childhood Education*, 1993 - present.
Editorial board member, *Mathematics and Computer Education Journal*, 1994 - 2016.

SELECTED REGIONAL/NATIONAL/INTERNATIONAL PRESENTATIONS

151. **Grandgenett, N**., Flesch, M., Hatt, C., Clark, B., Ewer, J., 2021. Three Years of Growing Mathematics Readiness Initiatives: The Nebraska Math Readiness Project. Presentation at the Nebraska Board of Education Town Hall, March 16, 2021 [Virtual Town Hall]

150. **Grandgenett, N**., Flesch, M., Hatt, C. 2021. Mathematics Readiness for College in Nebraska: Results of the Nebraska Mathematics Readiness Initiative, Lincoln, NE. Presented at the Coordinating Commission for Post-Secondary Education, December 2, 2021.

149. Anderson, J., Schaben, C., Buhs, E., **Grandgenett, N.** (2021). Phenomenology of secondary students' experiences in out-of-school time science research. Presented at the NARST 94th Annual International 2021 Conference, presented as a virtual conference presentation, April 7-10, 2021.

148. Leas, H., Cutucache, C., **Grandgenett, N.,** McAdams, J., Tapprich, W. (2021). Translation of teacher research experiences to K-12 classrooms: Does dosage matter? A poster presented at the American Association for the Advancement of Science, AAAS 2021 Annual conference, Feb 8-11, virtual conference.

147. Sommers, A., Gomez Johnson, K., Jakopovic, P., Rivera, J., **Grandgenett, N.,** Conrad, J., Tapprich, W., Cutucache, C. (2021). Salient experiences in undergraduate development via Chickering's Vector Framework. A poster presented at the American Association for the Advancement of Science, AAAS 2021 Annual conference, Feb 8-11, virtual conference.

146. Martinez-Oquendo, P.., Sommers, A., **Grandgenett, N.,** Conrad, J.J., Tapprich, W., Cutucache, C. (2021). How do pre-service teachers' self-perception of STEM identify evolve during college? A poster presented at the American Association for the Advancement of Science, AAAS 2021 Annual conference, Feb 8-11, virtual conference.

145. Stevenson N, Shultz A*, Kehler M*, Armshaw C*, Slobodnik*, Cutucache C, Tapprich W, **Grandgenett N**. 2020. NE STEM 4U: An afterschool program dually serving the STEM needs of K-8 youth and undergraduate students. National STEM Education Centers Meeting, May 2020—Virtual due to COVID-19.

144. Moore, C., Dorn, B., Rault, P., Stevenson, N, Cutucache, C., **Grandgenett, N.** (2020). The STEM center as an institutional change agent: Bringing faculty and administration together to increase the use of high-impact practice. Presented as a concurrent session at the 2020 Network of STEM Education Centers (NSEC), virtual conference, June 9-12, 2020.

143. Cutucache C, **Grandgenett N**, Tapprich W, & Conrad J. *NebraskaSCIENCE: School-University*
Partnership. NSF Virtual Noyce Summit. 2020. Washington, DC—Virtual due to COVID-19

142. **Grandgenett, N.,** Flesch, M., Romanek, D. (2020). The Nebraska context for grade 10-14, mathematics readiness for college: Challenges, Opportunities and Potential Next Steps. Presented in small group forum at the CBMS Mathematics Alignment Forum, as sponsored by the National Science Foundation, October 6, 2020 (virtual conference).

141. Lanier, A., Friend, M., Karabon, A., & **Grandgenett, N.** (2020, August). Teacher content knowledge and confidence in youth biomechanics education. American Society of Biomechanics (ASB) Virtual Meeting.

140. **Grandgenett, N**., Gomez Johnson, K. (2020) Effective mentoring strategies for students and faculty. Presented to faculty, administrators, and students in the Central Community College, NE's NSF funded S-STEM grant. Via Zoom, on October 28, 2020.

139. **Grandgenett, N.,** Ostler, E., Gomez-Johnson, K., Reding, T., Hatt, C. (2020) Mathematics Readiness in Greater Nebraska, Community College Presidents Association of Nebraska, Via Zoom on July 17th

138. **Grandgenett, N**., Flesch, M., Hatt, C., Gomez-Johnson, K., Ostler, E., Reding, T. (2020) Year 2 Results of the Statewide Nebraska Mathematics Readiness Project. Presentation to the Nebraska Coordinating Commission on Post-Secondary Education, October 8th, Lincoln, Nebraska.

137. **Grandgenett, N**., Ostler, E., Gomez-Johnson, K., Reding, T., Hatt, C. (2020). The Nebraska Mathematics Readiness Project. Presented to the Greater Nebraska Superintendents Association, October 30th, via Zoom.

136. **Grandgenett, N**., Ostler, E., Gomez-Johnson, K., Reding, T., Hatt, C., Flesch (2020). The Nebraska Mathematics Readiness Project as of Year 2. Presented to the Community College Association, July 17, via Zoom.

135. **Grandgenett, N.,** Wang, X., Karabon, A., Friend, M., Knarr, A., Takahashi, K., VanWyngaarden, K., Kim, N. (2019). NGSS Storylines as a Catalyst to Science Reform: Experiences of the BODYMODELS Project. A poster presented at the National Science Foundation's ITEST PI and Evaluator Summit, June 13, Alexandria, Virginia.

134. **Grandgenett, N.,** Wang, X., Karabon, A., Friend, M., Knarr, A., Takahashi, K., VanWyngaarden, K., Kim, N. (2019). Focus on Mathematics Roundtable: Experiences of the BODYMODELS Project. An invited roundtable at the National Science Foundation's ITEST PI and Evaluator Summit, June 14, Alexandria, Virginia.

133. **Grandgenett, N.,** Cutucache, C., Dorn, B., Moore, C., Rault, P. (June 1, 2019). The Emergence of a STEM Center: Lessons Learned and Still to Learn, presented at the Network of STEM Education Centers, Omaha, Nebraska, June 1, 2019.

132. Shultz A*, Conrad J, **Grandgenett N**, Tapprich W, Cutucache C. 2019. Engaging NOYCE participants in Teaching and Research Experiences via NE STEM 4U. NSF Noyce Summit, Washington, D.C.

131. Gomez Johnson, K., Flesch, M., Bruckner, M., **Grandgenett, N.F**., & Love, B. (2019, October). Critical mass: A city-wide network dedicated to mathematics education. Presented at the National Engagement Scholarship Consortium Conference, Denver, CO.

130. Rault, P., Cutucache, C., Dorn, B., **Grandgenett, N**., Moore, C., Puch, R., Schultz, A., (Accepted, May 31, 2019)., UNO STEM Activities. A poster presented at the Network of STEM Education Centers, Omaha, Nebraska, June 1, 2019.

129. Biomechanics to Engage Elementary Teachers and Students in Teaching and Learning STEM

Concepts (2018). A presentation at the 2018 Transforming STEM Higher Education Conference, Association of American Colleges and Universities, November 10, 2018, Atlanta GA.

128. Tips for Developing and Validating Assessments in Emerging STEM Disciplines (2018). A presentation at the 2018 Transforming STEM Higher Education Conference, Association of American Colleges and Universities, November 10, 2018, Atlanta GA.

127. The Omaha STEM Ecosystem: Collaborative Contexts (2018). A panel presentation at the 2018 Topics in Education Symposium. November 16, 2018, Omaha, Nebraska.

126. Communities of Practice as a Model for Identifying and Disseminating Best Practices in Teaching General Chemistry (2018). A presentation at the 25th Biennial Conference on Chemical Education, August 1, 2018, South Bend, IN.

125. An Update of the Biomechanics to Offer Diverse Young Minds Opportunities to Develop, Explore, and Learn STEM (BODYMODELS) project (2018). A Poster presented at the NSF ITEST PI conference, May 14, 2018, Washington D.C.

124. Skill Building in Noyce Scholars through Teaching in Course-based Undergraduate Research Experiences. A poster presented at the Midwest Regional Noyce Conference, October 12, 2018 in St. Louis, MO.

123. Software-Based Training to Enhance Student Learning in Biomechanics, Presented at 2018 Annual Meeting of the Nebraska Academy of Sciences, Lincoln, NE. April 20, 2018

122. NIBLSE: Building Assessments for Integrating Bioinformatics into Life Sciences Undergraduate Education," (2017). Poster presentation at the *Gordon Research Conference on Undergraduate Biology Education Research*, Easton, MA, July 2017.

121. Professional Development of Science Teachers in Omaha, Nebraska Using Authentic Research Experiences (2017). Geological Society of America Conference, October 22, 2017, Seattle, Washington.

120. Software-Based Teaching of Biomechanics to Engage Undergraduate Students (2017). American Society of Biomechanics Conference, August 8, 2017, Boulder, Colorado.

119. Partners for STEM: UNO Noyce and the Girls Inc. Eureka Program (2017). A Poster presented at the NSF Noyce PI conference, July 19, 2017, Washington D.C.

118. 2017 Solar Eclipse and Space Math Integration for Educators (2017). Gomez-Johnson, K., Grandgenett, N. A poster presented at the Nebraska Academy of Science Conference, Lincoln, NE, April 21, 2017.

117. Leveraging Technology-Based Learning Environments for Positive Outcomes among Underrepresented Minority Groups in STEM Education (2017). Nugent, G., Barker, B., Grandgenett, N. American Educational Research Association Annual Conference, San Antonio, Texas, April 27, 2017.

116. Assessment of student learning, knowledge retention and the lecture-lab connection with

respect to molecular geometry concepts taught in first semester college chemistry, American Chemical Society, August 21, 2017, Washington D.C.

115. It Can Only Be Understood with STEM (2017). Nebraska Association of the Gifted, Omaha, Nebraska, February 23, 2017.

114. *STEM and CS Bins: A Resource for Involving students in STEM Instruction.* Combined Mathematics and Science Teachers Conference. (2017). Kearney, Nebraska.

113. Nugent, G., Barker, B., Valentin, D., Grandgenett, N. (2017). The Effectiveness of E-Textile Technologies to Promote STEM Learning and Attitudes. The Hawaii International Conference on Education, Honolulu, Hawaii, January 7, 2017.

112. Incubators: A Community Based Model for Improving the Usability of Bioinformatics Learning Resources, poster presentation at the *National Association of Biology Teachers Annual Meeting*, Denver, CO, November 2016.

111. The Why, What and How of Building a Citywide STEM Ecosystem. Coalition of Urban and Metropolitan Universities (CUMU), Washington, DC, October 2016.

110. Robots, Bioinspiration and STEM Learning, Nebraska Research & Innovation Conference: Symposium of Biomechanics, Omaha, October 13, 2016.

109. Partners for STEM: UNO Noyce and the Girls Inc. Eureka Program. Presented at the National Science Foundation Robert Noyce Program PI Conference, July 20-22, 2016, Washington, D.C.

108. Community Chairs as a Strategy for Building STEM Community Engagement. Presented at the Engagement Scholarship Conference, October 12, 2016, Omaha, Nebraska.

107. Biology Laboratories for Integrating Bioinformatics into the Life Sciences, Symposium on Envisioning the Future of Undergraduate STEM Education: Research and Practice, April 10, 2016, Washington, D.C.

106. How can (and should) we assess high-quality after school interventions? GetConnected 2016 Nebraska Afterschool Conference, Omaha, NE, September 15, 2016.

105. Engaging Pre-Service STEM Teachers in Community Outreach Projects. Presented at the Engagement Scholarship Conference, October 11, 2016, Omaha, Nebraska.

104. It Can Only Be Understood with STEM, Nebraska Department of Education STEM Fellows, Kearney, Nebraska, July 19, 2016.

103. Engaging Interns with Youth, Engaging Youth with STEM, October 29, 2015 Regional Noyce Mathematics Conference, Omaha, Nebraska.

102. Building Computer Science Education Pathways, Coalition of Urban and Metropolitan Universities October 12, 2015, Omaha, Nebraska.

101. Laboratories and Bioinformatics, Association for Biology Laboratory Education Conference Laboratories for Integrating Bioinformatics into the Life Sciences, July 1, 2015, Grand Island, Nebraska.

100. Providing immersion experiences in STEM areas through NE STEM 4U: Community Partnerships for Student Success, Coalition of Urban and Metropolitan Universities Conference, October 13, 2015, Omaha, Nebraska.

99. Engaging Faculty in a STEM Priority, Coalition of Urban and Metropolitan Universities Conference, October 13, 2015, Omaha, Nebraska.

98. STEM in the Mathematics Classroom, Nebraska Association of Teachers of Mathematics, NATM, Kearney, NE, September 30, 2013.

97. Teaching STEM Concepts with Educational Robots. World Biomechanics Conference, UNO Biomechanics Core Research Facility, Hilton Hotel, Omaha Nebraska, September 4, 2013.

96. An exploratory study investigating a flipped classroom in a mathematics course. American Educational Research Association, April 2013.

95. UNO STEM Education, NU Foundation, Phoenix, Arizona, STEM Leadership Efforts of the College of Education, February 3, 2013

94. Keys to Effective Collaboration in STEM (2012). Presented at the Advanced Technologies in Education Conference, National Science Foundation, Washington, D.C.

93. The Integration of iPad Technology into STEM Education Coursework. (2012). Presented at the Nebraska Academy of Sciences Conference, Nebraska Academy of Sciences, Lincoln, Nebraska, April 16, 2012.

92. STEM Education: What is it and Where is it Going? (2012). Presented at the Earth System Science Education Alliance annual conference, Monterey, California, August 2, 2012.

91. Stimulating STEM Education with the CEENBoT Educational Robot (2012). Presented at the STEM Tech Conference, National Science Foundation, Kansas City, Missouri, October 30, 2012.

90. Successful Project Evaluation Strategies (2011). Presented as a Panel Discussion at the Evaluation Network for the Missouri River Basin, Omaha, Nebraska, October 7, 2011.

89. Poster Session: The Earth System Science Education Alliance at the University of Nebraska at Omaha. (2011). Presented at the Earth System Science Education Alliance annual conference/ Marquette, Michigan, August 16, 2011.

88. The Integration of iPad Technology into STEM Education Coursework. (2011). Nebraska Academy of Sciences Conference, Nebraska Academy of Sciences, Lincoln, NE, April 15, 2011.

87. Cultivating Innovators and Big Thinkers: An Interactive Lesson Model for Developing

STEM Curriculum. (2011). Presented at the National Science Foundation HITEC conference, San Francisco, California.

86. Effectiveness of a Robotics, GPS and GIS Program to Encourage STEM-Oriented Learning in Youth (2010). Presentation at the 72nd ITEEA conference, Charlotte, NC.

85. Creating Interdisciplinary STEM Environments at the University of Nebraska at Omaha. Presented at the American Geophysical Union, San Francisco (2010), California, December 13-17.

84. Two Online Environments to Support STEM Education (2010). A presentation poster session conducted at the Nebraska Academy of Sciences, April 2010.

83. GearTech-21: Examining the Depth Dimension of Scale. Presented the annual meeting of the National Science Foundation's Innovative Technology Experiences for Students and Teachers, Washington, DC, February 26th, 2010.

82. Poster Session: UNO's Efforts in the Earth System Science Education Alliance. Presented at the Earth System Science Education Alliance annual conference, Ithaca, New York, August 10, 2010.

81. Engaging Students with Robotics: A New STEM Curriculum. Presented at the NASA Space Grant Western Regional Meeting, Omaha, Nebraska, September 17, 2010.

80. Effectiveness of a Robotics, GPS and GIS Program to Encourage STEM-Oriented Learning in Youth. (2010). Presentation at the 72 ITEEA conference, Charlotte, NC.

79. Operationalizing TPACK for educators: The activity type approach to technology integration. The Society for Information Technology and Teacher Education (SITE), March 2, 2009, Charleston, South Carolina.

78. Year 2 of the Silicon Prairie Initiative for Robotics in Information Technology. Refereed poster presentation at the National Science Foundation Annual Conference for Discovery Learning and Research in K12 Environments, November 9-11, 2009, Washington, D.C.

77. K-16 collaboration between the University of Nebraska – Omaha and Omaha Nebraska area schools: Online Earth system science course offerings. A poster session conducted at the Geological Society of America conference, Portland, Oregon, October 18-21, 2009.

76. Scaling Up the Use of Educational Robotics for Nonformal Student Learning. Presented via webcast to the National Science Foundation's Innovative Technology Experiences for Students and Teachers, on August 26, 2009.

75. Survey and Focus Group Results of the UNO Earth System Science Education Course. Presented at the Earth System Science Education Alliance annual conference, Tuscon, Arizona, June 2009.

74. Building the IT Pipeline. Presented at the Infotec 2009 annual conference, Omaha, Nebraska, April 15, 2009.

73. The Silicon Prairie Initiative for Robotics in Information Technology. Refereed poster presentation at the National Science Foundation Annual Conference for Discovery Learning and Research in K12 Environments, November 12-14, 2008, Washington, D.C.

72. The TekBot Project: Integrating robotics into undergraduate engineering. Refereed poster presentation at the National Science Foundation Annual Conference for Course, Curriculum and Laboratory Instruction, August 13-15, 2008, Washington, D.C.

71. UNO's efforts in Earth System Science Education. A presentation poster session conducted Nebraska Academy of Sciences, April 2008.

70. Educational robotics and student learning. Presented at the International Technology in Education Association annual conference, in Salt Lake City, February 2008.

69. The SPIRIT Robotics Project and the 4H Robotics and GIS/GPS Project. Presentation made at the National Science Foundation Information Technology in Teacher Education Annual Conference, Washington, D.C., February 2008.

68. Integrating research into 1st semester general chemistry. Presented at the NSF Course Curriculum and Laboratory Investigation (CCLI) annual conference, Washington, D.C., August 2008.

67. How do you grow future teacher's assessment skills? A presentation made at the Center for the Assessment and Evaluation of Student Learning Annual Conference, San Francisco, California, October 2008.

66. Earth System Science Education efforts at the University of Nebraska at Omaha. Presented at the Earth System Science Education Alliance annual conference, Charleston, South Carolina, June 2008.

65. Comparison of the Impact of Content Courses of Preservice Elementary Teachers' Mathematical Knowledge and Attitudes. Presented at the annual conference for the Association of Mathematics Teacher Educator's Conference, in Tulsa, Oklahoma, January 2008.

64. Educational Robotics and STEM Learning: A Conversation. A presentation made at the 5th Annual National Science Foundation Summit for Principal Investigators of the Information Technology Experiences for Students and Teachers, Washington, D.C., February 2008.

63. When does evaluation not feel like evaluation? Embedding evaluation activities into programs. Refereed presentation at the American Evaluation Association Annual Conference, Baltimore, Maryland, November 2007.

62. Unraveling impact threads within a project evaluation process. Presentation made at the National Science Foundation Advanced Technologies in Education Annual Conference, Washington, D.C., October 18, 2007.

61. A review of the electronic coursework efforts of the University of Nebraska at Omaha in the Earth System Science Education Alliance. Presented at the American Geophysical Union annual conference, San Francisco, California, December 2007.

60. Poster Presentation: The Midwest Center for Information Technology. Poster presentation made at the National Science Foundation Advanced Technologies in Education Annual Conference, Washington, D.C., October 19, 2007.

59. Panel presentation: Mathematics Instruction and the Critical Need for TPCK at the Society for Information Technology and Teacher Education (SITE), presented March 2007, in San Antonio, Texas.

58. Evaluation of the Silicon Prairie Initiative for Robotics in Information Technology. A presentation made at the 4th Annual National Science Foundation Summit for Principal Investigators of the Information Technology Experiences for Students and Teachers. Presented on February 7, 2007.

57. Embedded Assessment Working Group Panel. A panel presentation made at the 4th Annual National Science Foundation Summit for Principal Investigators of the Information Technology Experiences for Students and Teachers. Presented on February 7, 2007

56. Information Technology, Imagery, and Interactivity: Key Components of New Strategies for Earth Systems Science Education. Refereed presentation at the Nebraska Academy of Sciences Conference, Lincoln, Nebraska, April 2006.

55. Poster Presentation: The Midwest Center for Information Technology. Poster presentation made at the National Science Foundation Advanced Technologies in Education Annual Conference, Washington, D.C., October 18, 2006.

54. Constructive Collaboration: Maximizing your Partnerships for ATE Success. Round table presentation made at the National Science Foundation Advanced Technologies in Education Annual Conference, Washington, D.C., October 18, 2006.

53. College Students of Tomorrow: Changing Experiences, Changing Expectations, Changing Brains. Presented at the Midwest Center for Information Technology Working Connections IT Faculty Development Institute, June 28, 2006.

52. Fun Activities for Blending Math and Economics Instruction in Grades 3-5. Presented at the National Council of Teachers of Mathematics Annual Conference, April 28, 2006, in St. Louis, Missouri.

51. Models for the Use of Space Imagery in Technology Supported Learning Environments. Refereed presentation at the Nebraska Academy of Sciences Conference, Lincoln, Nebraska, April 2005.

50. Poster Presentation: The Midwest Center for Information Technology. Poster presentation made at the National Science Foundation Advanced Technologies in Education Annual Conference, Washington, D.C., October 27, 2005.

49. Mathematics and Economics: Making Connections for Life in Grades 3-5. Presented at the National Council of Teachers of Mathematics Annual Conference, April 8, 2005, in Anaheim, California.

48. Mathematics and Economics: Connections in Grades 3-5. Presented at the National Council of Teachers of Mathematics Annual Conference, April 28, 2006, in St. Louis, Missouri.

47. Satellite Imagery and Middle School Science: Ten Examples. (March 2004). Presented at the National Science Teachers Association Annual Conference, in Atlanta, Georgia.

46. Collaborative Evaluation to Assist Project Management: Strategies for Building an Effective Evaluation Partnership. (October 2003). Presented at the NSF Advanced Technologies in Education Annual Conference, Washington, D.C.

45. Nebraska ESSEA - NASA Coursework: Modifications and Innovations. (June 2003). Presented at the NASA Earth Systems Science Education Alliance Conference, in Port Ludlow, Washington

44. Online Courses in Space Education: Prototypes and Progress. (April 2003). Refereed presentation made at the Nebraska Academy of Sciences Conference, Lincoln, Nebraska3.

43. Birds of a Feather in Online Space Education Courses. (August 2003). Presentation at the Midwest Internet Institute Annual Conference, Lincoln, Nebraska.

42. The Midwest Center for Information Technology Project. (2002 October). Presented at the National Science Foundation Annual Applied Technologies Conference. Washington. D.C.

41. Online NASA coursework in Nebraska. (2002 June). Presented at the NASA Earth Systems Science Education Alliance Annual Conference. Wheeling, West Virginia.

40. A report of the America's Farm online curriculum project. (2002 May). Presented at the NSAS Learners Conference. Cocoa Beach, Florida.

39. Faculty mentoring and K-12 partnerships. (2002 May). Invited presentation at the Nebraska Symposium on Information Technology in Education Conference. Lincoln, Nebraska.

38. Helping kids reach for the stars: A review of UNO's space education activities. (2002 April). Presented at the Nebraska Academy of Sciences Conference. Lincoln, Nebraska.

37. Satellite imagery and agriculture: New opportunities for learning. (2002). Presented at the National Science Teachers Association Annual Conference. San Diego, California.

36. On-line and on-target: strategies for assessing the educational technology competency of teachers. (2002). Society for Information Technology and Teacher Education. Nashville, Tennessee.

35. The Affinity Learning in Mathematics Project: Online Mathematical Modeling. (2001). Refereed poster presentation at the American Mathematical Association of Two-Year Colleges. Toronto, Canada.

34. The Affinity Learning Project. (2001). Refereed poster session presentation delivered at the NSF Conference on Rethinking Preparation for Calculus. Arlington, Virginia.

33. Teachers learning during curriculum-based online projects. (2001). Presented at the National Educational Computing Conference. Chicago, Illinois.

32. Building a catalyst infrastructure: Lessons and innovations from Nebraska. (2001). Presented at the National Educational Computing Conference. Chicago, Illinois.

31. The UNO Space Shuttle Simulation Laboratory 2001: An expanding curriculum and action research model. (2001). Presentation at the Nebraska Academy of Sciences Conference. Lincoln, Nebraska.

30. Space images and agriculture: Ideas for the Science classroom. (2001). Presentation delivered at the National Science Teachers Association Annual Conference. St. Louis, Missouri.

29. Mathematical modeling within a technology-based learning environment: A process for adaptive instruction. (2000). Presentation at the Joint Mathematics Conference. New Orleans, Louisiana.

28. The Internet and K8 mathematics: wow….Look at these opportunities! (2000). Presentation at the National Council of Teachers of Mathematics Regional Conference. Omaha, Nebraska.

27. Technology in the classroom. (2000). Ed- Media 2000 Conference. Montreal, Quebec, Canada.

26. Using space imagery to enhance the learning of mathematics and science. (2000). Presented at the National Science Teachers Association Annual Conference. Orlando, Florida.

25. Using space data in the curriculum: Some examples. (1999). Presented at the National Science Teachers Association 1999 Conference. Boston, M.A.

24. Possibilities for the use of space imagery in climate education. (1999). Invited presentation at the Global Environmental Strategies Meeting. Washington, D.C.

23. Effectively using Internet data: New horizons in mathematical modeling. (1999). Presented at the Society for Information Technology in Teacher Education 1999 Conference. San Antonio, Texas.

22. The UNO Internet Studies Office and related research activities in Nebraska. (1998). An invited presentation to faculty at Dartmouth College. Hanover, New Hampshire.

21. The educational uses of space data. (1998). Presentation at the National Science Teachers Association 1998 Conference. Las Vegas, Nevada.

20. The Consortium for the Application of Space Data in Education: Opportunities for the classroom. (1998). Presented at the Classroom Telecommunications Conference. Glendale, CA.

19. The Nebraska K-12 Internet evaluation. (1998). Presented at the Association of Educational Communications and Technology (AECT) Conference. Chicago, Illinois.

18. Using the Internet in mathematics and science education. (1998). Presented at the Midwest Internet Institute. Lincoln, NE.

17. Project TEAM: A collaborative Internet inservice model. (1998). Presentation at the Society for Information Technology in Teacher Education Conference, Boston, MA.

16. The Future of Technology in Learning and Teaching. (1997). Invited panel participant at the Iowa State Center for Technology in Learning and Teaching Conference.

15. The Internet and the mathematics classroom. (1997). Presentation made at the Midwest Internet Institute, August 1997.

14. Evaluating the effectiveness of programs and projects - What constitutes realistic and useful measures? (1996). An invited panel presentation at the Linking of Learners Leadership Conference, on October 7, 1996, in Washington D.C.

13. An evaluation of the Nebraska K-12 Internet implementation. (1995). Presented at The National Educational Computing Conference, Baltimore, Maryland, March 1995.

12. Closed labs and alternatives for computer science courses. (1995). Presented at The National Educational Computing Conference, Baltimore, Maryland, June 1995.

11. Urban technology session: Field of dreams. (1995). Presented at the Conference of the Council of Great City Schools, Oklahoma City, Oklahoma, September 1995.

10. Nebraska's K-12 Internet evaluation. (1995). Presented at the Mountain Plains Media Leadership Symposium 1995, Estes Park, Colorado, October 1995.

9. Technology in the mathematics classroom: Some teacher and student examples. (1994). Presentation at the 1994 Midwest Regional National Council of Teachers of Mathematics Conference, Omaha, Nebraska.

8. An assessment model for examining the Internet in education. (1994). This was a presentation made at the Mountain Plains Media Leadership Symposium, held in Estes Park, Colorado, October.

7. Project TEAM and evaluating the Internet in Nebraska. (1994). An invited presentation to the Office of Technology Assessment, U.S. Congress, Washington, D.C., January 1994.

6. Mathematics education and advanced technologies: A collaborative in-service model. (1993). National Educational Computing Conference, June 1993.

5. Project TEAM: A final report. (1992). Invited presentation at Dartmouth College, Hanover, New Hampshire, October 1992.

4. Educational technology in higher education. (1992). Invited presentation at North Dakota State University, May 1992.

3. Designing developmentally appropriate hypermedia: Qualitative analysis. (1992). National Educational Computing Conference, June 1992, Chicago, IL.

2. Project TEAM: A collaborative training model. (1991). Presented at the Minnesota Educational Computing Conference, November 1991.

1. Teaching analogical reasoning through guided Logo programming. (1990). National Educational Computing Conference, Nashville, Tennessee, June 1990.

EXTERNALLY FUNDED GRANTS (As PI/CoPI): *Total of Grants is $24,394,104 (N=109)*

109. Grandgenett, N., Rosen, A., Moore, P., Schmidt, K., Davies, D., Nugent, G., Simon, D., Diaz, C. (2021). NU Standards-based, Technology-Rich Inquiry in Virtual Education (NU-STRIVE). Funded by the NU Collaboration Initiative for $150,000 to potentially start in 2021.

108. Gomez-Johnson, K., Jakopovic, P., Rault, P., Rech, J., Matthews, M., Grandgenett, N. (2020). NebraskaMath Omaha Noyce Partnership: Phase 2. Funded for $1,448,829 by the National Science Foundation.

107. Cutucache, C., Grandgenett, N., Tapprich, W. (2021). NE STEM T^3 Funded for $9,000 by the Collective for Youth Organization.

106. Cutucache, C., Grandgenett, N., Tapprich, W. (2021). NE STEM Network Funded for $64,431 by the Peter Kiewit Foundation.

105. Nero, D., Grandgenett, N. (2020-2021). Illuminate Nebraska Content Development Project. Awarded by the Nebraska Public Power District, on September 15, 2020. Awarded $55,000.

104. Collective for Youth. (2020-2021) *Adaptive OST Programming for STEM: To include multi-stakeholder networks.* (PI: C. Cutucache, CoPIs: N. Grandgenett, W. Tapprich) $48,228.

103. Unizin (2020-2021) *Impact of Digital Learning Interactions in STEM Education.* (PI: T. Reding, CoPI: J. Buzzell, C. Cutucache, N. Grandgenett, C. Moore) $10,000.

102. Collective for Youth (Pass-through from The Sherwood Foundation) (2019-2020) NE STEM 4U: Fidelity of youth voice and relationship building for broader STEM conversations. (PI: C. Cutucache, coPIs: N. Grandgenett, W. Tapprich) $73,474

101. Nebraska Children and Families Foundation (Nebraska Lottery pass-through) (2020-2021) *Center of Excellence: NE STEM 4U Reaching All Learners.* (PI: C. Cutucache, CoPIs: N. Grandgenett, M. Morris, W. Tapprich). $29,923 + 2,000 supplement

100. Collective for Youth (Peter Kiewit Foundation pass-through) (2020-2021) *NE STEM 4U*

"Train-the-Trainer": OST Staff PD and STEM programming. (PI: C. Cutucache, CoPIs: N. Grandgenett, W. Tapprich) $11,500

99. Nebraska Children and Families Foundation (2019-2020) *STEM TRAIL Center: STEM Education Professional Development for Rural Programs Across Nebraska.* (PI: C. Cutucache, Co-PIs: N. Grandgenett, W. Tapprich) $16,000

98. Collective for Youth (Pass-through from the Peter Kiewit Foundation) (2019-2020) NE STEM 4U: Youth voice and student identity in elementary-aged youth. #3094. (PI: C. Cutucache, CoPIs: N. Grandgenett, W. Tapprich) $19,200

97. Biomechanics to Offer Diverse Young Minds Opportunities to Develop, Explore, and Learn STEM (BODYMODELS). Awarded by the NSF ITEST Program, $1,199,939, as NSF #1759000, Funded as PI from January 1, 2018 to December 31, 2020.

96. Teacher Researcher Partnership Project – Phase II. (2018). The Sherwood Foundation, $1,041,586, September 10, 2018.

95. Girls Inc. Eureka 2018 STEM Camp. (2018). The Girls Inc. Foundation, $80,000, June 1, 2017.

94. The Nebraska Robotics Expo (2018). The NASA Nebraska Space Grant, $6,000, January 15, 2018.

93. NE STEM 4U. (2018). The Sherwood Foundation, $85,914, September 10, 2018.

92. NE STEM 4U Elementary (2018). The Nebraska Children and Families Foundation, $19,200, August 20, 2018.

91. NE SciLead: UNO-UNK. (2017). The Nebraska Children and Families Foundation, $15,000, August 30, 2017.

90. NebraskaSCIENCE Omaha NOYCE Partnership: A School-University Partnership to Develop Exemplary Science Teachers in Nebraska, National Science Foundation. (2017). NSF #1659058. $1,200,000, March 23, 2017.

89. Nebraska Innovative Maker Co-Laboratory (NiMC). (2017) National Science Foundation EAGER Program, NSF #1723520, $300,000, July 11, 2017.

88. NE STEM 4U in Elementary Schools, Peter Kiewit Foundation. (2017). $20,000, January 10, 2017.

87. Nebraska SciLead: UNO-UNK, Nebraska Children and Families Foundation, $15,000. This project helps UNK Faculty do a UNO-related NE STEM 4U approach to their STEM afterschool assistance to local schools.

86. Girls Inc. Eureka STEM Camp. (2017). The Girls Inc. Foundation, $80,000, June 1, 2017.

85. Supporting research opportunities for underprivileged youth through teacher-researcher partnerships. (2016). The Sherwood Foundation/NU Foundation, $628,208, March 1, 2016.

84. NE STEM4U: After School STEM Outreach. (2016). Sherwood Foundation/NU Foundation, $106,877, May 1, 2016.

83. Nebraska Wearable Technologies. (2016). ITEST NSF #1433822, $1,196,213, Awarded August 22, 2014.

82. NASA System Modeling for K-12 STEM Teachers. (2016). NASA Nebraska Space Grant, $7,850, Awarded May 1, 2016.

81. Bricklayer: Coding, Art, and Math (2017). The National Science Foundation, $299,375; September 1, 2017.

80. NE STEM 4U: Programming in elementary schools. (2015). Peter Kiewit Foundation, Local $9,000, October 5, 2015.

79. After school STEM outreach in OPS. (2015) Sherwood Foundation/NU Foundation, Local $106,877, August 1, 2015.

78. RCN-UBE: Network for Integrating Bioinformatics into Life Sciences Education. (2015). National Science Foundation (NSF), $499,272, September 1, 2015.

77. Girls Inc. Eureka STEM. (2015). Girls Inc. Foundation, $79,956, May 1, 2015.

76. Supporting research opportunities for underprivileged youth through teacher-researcher partnerships. (2015). The Sherwood Foundation/NU Foundation, $628,208, April 15, 2015.

75. Strategic Approach to Rouse Computer Science (SPARCS). (2015). NSF # 1433788, $1,144,424, January 1, 2015.

74. NebraskaMATH Omaha Noyce Partnership. (2014). National Science Foundation, NSF # 1439796, $1,197,265, July 19, 2014.

73. RCN-UBE: Network for Integrating Bioinformatics into Life Sciences Education (NIBLSE). (2014). National Science Foundation (NSF), Federal, $49,890.

72. Developing an Online Master of Science Degree in Computer Science Education. (2014). Online Worldwide, University of Nebraska at Omaha, Omaha, Nebraska; $35,000.

71. Mathemantics II: Learning the power of mathematical computation. (2014). Nebraska's Coordinating Commission for Postsecondary Education (CCPE), $68,900.

70. NE STEM 4U: After school STEM outreach in OPS. (2014). The Sherwood Foundation, $106,876.

69. Project MATTERS: Mobile Applications Transforming Teaching, Engagement and Research for Students, (2012). Funded by the Nebraska Research Initiative. $100,000, September 1, 2012.

68. Research Experiences for Teachers in Engineering and Computer Science Site on Infusing Mobile Platform Applied Research into Teaching (IMPART), NSF, $449,000, March 3, 2012.

67. Keeping Omaha Area Math Teachers' Circles Alive. (2012). American Institute of Mathematics, Funded for $1,500, January 1, 2012.

66. Mathemantics: Learning the Power of Mathematical Communication, NE Coordinating Commission, (2012). Funded for $69,802, March 15, 2012.

65. Kelly Proposal: Investigation of a Student-Centered Approach to Teaching University Mathematics with Applications to Teacher Education and other STEM Fields (2012). NU Board of Regents, Funded for $12,000, May 1, 2012.

64. Evaluation of Integrating Bioinformatics into the Life Sciences-Phase II. (2012)., National Science Foundation, Funded for $600,000. (September 1, 2012).

63. Eureka Summer Program (2012), Girls Inc., $38,600 by Girls Inc., June 4, 2012.

62. Nebraska Blast, Nebraska Coordinating Commission for Postsecondary Education. (2011). Funded for $99,882.00, December 11, 2011.

61. iPad 2 Technologies: STEM Education and NASA Connections. (2011). NASA Nebraska Space Grant, Lincoln, Nebraska, $10,000, June 1, 2011.

60. The UNO Mathematics Teacher Assistant Program, Building Bright Futures, (2011). Building Bright Futures, $75,000, June 20, 2011.

59. The Integration of iPad Technology into STEM Coursework. (2010). $10,000, NASA Nebraska Space Grant Consortium and funded in June 2010.

58. Teacher Stipends for Earth System Science Coursework. (2009). Funded for $7,500 by the NASA Nebraska Space Grant Consortium, August 1, 2009.

57. Online Curriculum Modules for Teacher Education, (2009). $10,000 by the NASA Nebraska Space Grant Consortium, June, 15 2009.

56. Evaluation of the Gear21 - 4H Robotics Scale Up Project. (2019). Funded as a UNL/NSF subcontract from the Information Technology Experiences for Teachers and Student (ITEST) program of the National Science Foundation for a total of $99,995, September 1,2019.

55. Project SHINE. (2009). Funded as a Central Community College (CCC) subcontract from the NSF Advanced Technology in Education (ATE) program with UNO's efforts related to the curriculum evaluation activities. I was a CoPI for the Joint Funding of $1.2 million, September 1, 2009.

54. SPIRIT 2.0 (2008). NSF Discovery Research K12 Project. $2,999,963, Discovery K12 Learning program of the National Science Foundation, NSF # 0733228, January 1, 2008.

53. 4H Robotics Project. (2007). Information Technology Experiences for Teachers and Students (ITEST) program of the National Science Foundation, $998,993, over a period of three years.

52. The UNO Earth System Science Education Alliance Online Course. (2007)..$40,000 by Institute for Global Environmental Studies (NASA), funded October 15, 2007.

51. Math and Science Education Connections (2007). $7,500 by the NASA Nebraska Space Grant Consortium, and funded April 10, 2007.

50. Enhancing Mathematics Achievement by Collaborative Professional Development. (2005). $78,938 by Nebraska Coordinating Commission for Postsecondary Education, March 1, 2005.

49. Teaching for Elementary Achievement in Mathematics. (2006). $77, 920 by the Nebraska Coordinating Commission for Postsecondary Education, June 1, 2006.

48. SPIRIT: Silicon Prairie Initiative on Robotics in IT. (2005), $1,170,488 from the National Science Foundation ITEST program. NSF #0525111, May 1, 2005.

47. TekBot - Educational Robotics Project. (2005). Funded for $160,000 from the National Science Foundation A&I program.

46. Aeronautics in America: Back of Poster Effort. (2004), $11,100 by NASA through the California Space Grant Foundation.

45. The Formative Evaluation of a Thinking Tool for 3rd Year Medical Students. (2004). Funded for $3,020 by the University of Nebraska Medical Center on January 6, 2004.

44. An Evaluation of the Nebraska Catalyst Project. (2003). Funded for three years for $118,000, by the U.S. Department of Education.

43. Online Space Education: Expanding the UNO Space Shuttle Simulation Laboratory into Virtual Learning Environments. (2003), $5,000, January 22, 2003. by the NASA Nebraska Space Grant Consortium. PI.

42. Systemizing Teacher Support in Space Education. (2003), Funded for $24,500, July 1, 2003, by the Nebraska Space Grant Consortium.

41. On-line Earth Science Education in Nebraska: Building on Excellence and Interest. (2002) – Funded for $9,852 from the NASA Earth Systems Science Education Alliance, May 22, 2003.

40. The Impact of an Earth systems Science Education Course for Teachers. (2002). Funded for $45,000 by NASA Earth Systems Science in Education Alliance, August 15, 2002

39. Investigating School Technology Audits (2002). Funded for $7,500 by the National Center for Information Technology in Education (NCITE), October 15, 2002.

38. Preparing Technology Using Teachers. (2001). Funded for $1,078,108 over three years from the U.S. Department of Education, August 15, 2001.

37. America's Virtual Farm: Education Component. (2001). Funded for $180,000 from NASA. The project is also a collaboration with the Center for the Application of Land Management Technologies (CALMIT) at UNL.

36. An Online Webshop to Support the Integration of Space Activities. (2001). This project was funded for $10,000 from the NebSat Program of Nebraska, April 1, 2001.

35. A Research Snapshot of Educational Technology Use in Nebraska. (2001). Funded for $5,700 by the Nebraska Educational Service Units, June 1, 2001.

34. The Digital Earth Educational Special Interest Group. (2001). Funded for $25,000 by the NASA Jet Propulsion Laboratory.

33. Technology Infrastructure for the UNO Global Land and Ice Measurements from Space Project. (2001). Funded for $75,000 by the Nebraska Foundation.

32. An Investigation of the Implementation of Education Related Technology in Nebraska's P-12 schools. (2000). Funded for $17,000 by Nebraska State Department of Education, May 1, 2000.

31. Enhancing the Space Shuttle Simulation Lab Operation - Millard Foundation. (2001). Funded for $25,000 from the Millard Foundation, May 1, 2001.

30. Enhancement of the Space Shuttle Simulation Laboratory server. (2001). Funded for $10,000 from NSF/EPSCoRE.

29. An Implementation of Education Related Technology in P-12 schools: A State Research Project. (2000). Funded for $15,000 by the Nebraska Department of Education, November 1, 2000.

28. Affinity Learning in Mathematics – Prototype Development. (1999). Funded by the National Science Foundation for $88,209, in partnership with the University of Nebraska Lincoln, Applied Information Management Institute, and Nebraska Educational Telecommunications, February 15, 1999.

27. Impact evaluation of the Connections Challenge Grant. (1996). Funded for $400,000 by the U.S. Department of Education. June 1, 1996.

26. Educational impact of the Nebraska Community Discovered Challenge Grant. (1995). Funded for $450,000, U.S. Department of Education. February 1, 1995.

25. The Consortium for the Application of Space Data in Education – Educational Impact and Development. (1996). Funded for $450,000 from NASA, May 10, 1996.

24. Exploring Student Interaction within a Technology Intensive Space Simulation (1999). Funded for $5,000 by the NASA Nebraska Space Grant Consortium, April 1, 1999.

23. The Physics and Teacher Education Math and Science Camp (1998/1999). Funded by the United States Army, for $6,000, January 10, 1998 and $3,000, January 20, 1999.

22. Involving Preservice Teachers in the PEERs Academies. (1996-1997-1998). Funded through the Federal Eisenhower Fund, for $24,000 over three years.

21. A Model Training Environment for the Use of Space Imagery. (1998). Funded by NebSat for $10,000.

20. Space Shuttle Simulation Lab. (1996-1998). Funded for $120,000 by University of Nebraska Foudation with support and matching donations from local businesses, February 15, 1996.

19. Using Space Images in the Classroom: A Pilot Teacher Project. (1998). Funded by the Corporation for Public Broadcasting (CPB) for $5,000.

18. The UNO and Omaha Public Schools NASA EarthKam Project. (1998). Funded through NASA and facilitates participation in the NASA EarthKam Project, for $450.

17. Enhancing activities in the UNO Space Shuttle Simulation Laboratory. (1998). Funded for $5,000 by the Nebraska Space Grant Consortium.

16. An Assessment of Nebraska's Statewide Internet Activities. (1993-1998). Funded for $34,200 over 6 years by the Nebraska Educational Service Units.

15. An Investigation of Student Learning within the UNO Space Shuttle Simulation Laboratory. (1997). Funded for $5,000 by the NASA Nebraska Space Grant Association.

14. A Research Snapshot of Technology use in K12 Classrooms in Nebraska. (1997). Funded for $13,000 by the Nebraska Department of Education.

13. The UNO and Millard Public Schools NASA KidSat Partnership. (1996). Funded by NASA and through the UNO Aviation Institute, for $2,000.

12. An Internet-based Exploration of Nebraska via Distance Learning. (1996). Funded for $6,954 from the Nebraska Educational Telecommunications Center (NebSat).

11. A Content and Pedagogy Development Grant. (1996). Funded for $4,000 from the Nebraska Mathematics and Science Initiative.

10. Initiating a Graphing Calculator Environment. (1996). Funded for $4,000 by the Texas Instrument Company.

9. Project TEAM – Internet. (1995). Funded for $112,000, by the Helena Foundation.

8. Case study: The Learning Environment in an Internet Infused Classroom. (1995). Funded for $6,965 by the Mid-continent Regional Educational Laboratory.

7. An Appraisal of the Impact of the Statewide Internet Implementation on K-12 Education in Nebraska. (1994). Funded for $87,358, by the U.S. Department of Education.

6. The Omaha Mathematics and Science Eastern Regional Coalition. (1994-1997). Funded for $270,000 over 3 years, by the National Science Foundation and the Nebraska Mathematics and Science Initiative.

5. The Omaha Mathematics Coalition Planning Agenda. (1993). Funded for $1,000, by the Nebraska Mathematics and Science Coalition.

4. Project TEAM Phase II: Technology in Education Advancement Model - Secondary Mathematics. (1992). Funded for $97,137, by the Helena Foundation.

3. Project TEAM: Technology in Education Advancement Model. (1990). Funded for $66,000, by UNO/Dartmouth Partnership.

2. The Multimedia Learning and Production Laboratory. (1990). Funded for $20,000, by The University of Nebraska Foundation.

1. Project Proposal and Design Workshop Grant. (1989). Funded for $8,335, by the University Committee on Research.

SERVICE ON SCHOOL EVALUATION TEAMS

Omaha Nation Schools COMER School Improvement, 2006-2010
Southern Public Schools Accreditation Review Team, 2004-2006
Westside Community Schools Accreditation Review Team, 2003-2004
Bellevue Public Schools Accreditation Review Team, 2001-2003
Educational Service Unit #3, Omaha, Nebraska, technology team member, 1999
Papillion-LaVista Public Schools, general education team member, 1995
Ralston Public Schools, technology team member, 1995
Ankeny Public Schools, Ankeny, Iowa, technology team member, 1994
Valley Public Schools, Valley, Nebraska, mathematics team member, 1994

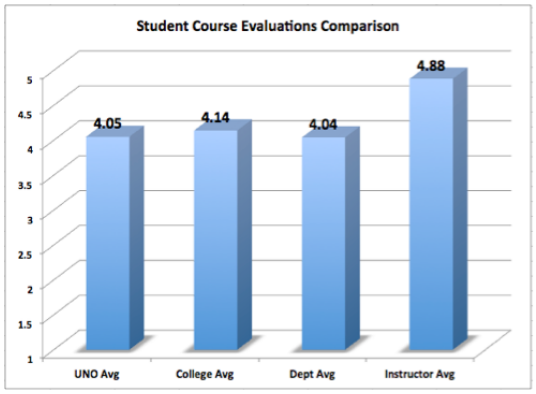
COURSES TAUGHT

Data Visualization and Modeling for Educators – Graduate	(TED 8370, UNO)
Data Driven Decision Making – Graduate	(TED 8050, UNO)
Advanced Seminar in Research and Evaluation - Graduate	(TED 8030, UNO)
Teaching of Mathematics - Graduate	(TED 8410, UNO)
Teaching of Mathematics - Elementary	(TED 4330, UNO)
Teaching of Mathematics - Secondary	(TED 4000, UNO)
Using Microcomputers for Education (Graduate)	(TED 8540, UNO)
Emerging Technologies in Education (Graduate)	(TED 8000, UNO)
Introduction to Research (Graduate)	(TED 8010, UNO)
Improvement of Instruction- Mathematics (Graduate)	(TED 8410, UNO)
NASA America's Farm Course (Online Graduate Class)	(TED 8970, UNO)
NASA Earth Systems Science for Teachers (Online Graduate Class)	(TED 8100, UNO)
Introductory Educational Research (Graduate)	(ResEval 550, ISU)
Using Computers in the Educational Process	(SecEd 302, ISU)

Educational Applications of Computer Programming	(SecEd 102, ISU)
Educational Applications of Microcomputers	(SecEd 101, ISU)
College Statistics	(Math 242, CSM)
College Intermediate Algebra	(Math 112, CSM)
College Algebra	(Math 110, CSM)
Basic Mathematics	(Math 100, CSM)
Basic Statistics for Research in Social Sciences	(Nur 300, CSM)
College Trigonometry	(Math Dept., UNO)
7th Grade Basic Mathematics	(Dist. 66, Omaha)
8th Grade Basic Mathematics	(Dist. 66, Omaha)
8th Grade Honors Algebra	(Dist. 66, Omaha)
9th Grade Algebra	(Dist. 66, Omaha)

TEACHING EXCELLENCE AND ENGAGEMENT

I have taught a total of 202 classes over my career, and worked very hard to be a model teacher, particularly since most of my undergraduate and graduate students would someday themselves become P12 teachers. As a faculty member, I usually taught from 2 or 3 courses per semester and 1 or 2 courses each summer. Then as Community Chair, I taught about 1 or 2 courses per semester as a Haddix Community Chair. I then did not teach as Associate Dean or Interim Dean, but rather supported instruction. Here are several factoids related to my teaching over my career.



- In my career at UNO I have received instructor averages on course evaluations of no lower than 4.0 out of 5.0, and routinely at the top of the scale (Mean = 4.88), with the summary question that says: *"Compared with other instructors I have taken at UNO this instructor is: 1 very poor, 2 poor, 3 average, 4 good, and 5 very good."*

- In my years of teaching, I received 30 consecutive annual reviews in which my teaching was ranked as the highest possible teaching rating by my peers (categories changed over the years) with a ranking of either "outstanding" or "exceptional".

- I won the College of Education Alumni Teaching Award in 2007, which included student nomination letters of support. I also won the Nebraska Information Technology Professor of the Year Award (1998) that was also student nominated and related to my use of emerging technologies in my courses. I heavily used technology to a great degree in all of my courses.

- The Nebraska Association of Teachers of Mathematics, who represented many of my former undergraduate and graduate students in mathematics education awarded me the Milton W. Beckman Lifetime Achievement Award in 2013 for excellence in my teaching of so many mathematics teachers who were also UNO students over my university career. This was perhaps the single award that I most appreciated and was most humbled by in my lifetime.

GRADUATE THESIS AND DOCTORAL DISSERTATION COMMITTEES

The supervision of graduate students at UNO has included to date, the following:

The participation on **35** master thesis committees
The chairing of **27** master thesis committees
The participation on **54** doctoral dissertation committees (UNO/UNL)
The chairing of **6** doctoral students (UNO/UNL)

OTHER CREATIVE AND SCHOLARSHIP RELATED ACTIVITIES

Omaha Citywide STEM Ecosystem

I provided UNO leadership to help to found, with other city partners the Omaha Citywide SYEM Ecosystem, which works across 80 Omaha educational, business, and community organizations, and more than 950 participants to help to build educational pathways in STEM Education that leads effectively into STEM careers. We worked with the Henry Doorly Zoo and Aquarium to co-lead many efforts over the years, such as building a formal strategic plan, charter, subcommittees as well as fund and hire a full-time director for the Ecosystem. The OSE received Governor Proclamation: Omaha STEM Ecosystem Celebrates National STEM Day. Governor's Office, recognizing the work of the OSE, in accordance with National STEM Day, November 8th, 2020.

Community Chair Concept at UNO

I am very proud that I was the first Community Chair at UNO, and helped to lead the conceptualization of that concept, working across colleges, with many senior faculty, administrators, and the NU Foundation. The position supports innovative teaching that is interdisciplinary, engaging, and community oriented. Community Chairs are regular faculty but have a reduced teaching load (2 courses per semester), a small budget, and some great interdisciplinary support from faculty and colleges in crossing colleges to create new interdisciplinary instructional innovations. There are now five UNO community chairs in STEM (STEM, Science, Mathematics, Computer Science, and Physical Sciences), all of which were externally funded, and I helped to conceptualize and help to get funded, each of these positions. There is also a total of 11 Community Chairs at UNO now across all areas.

CS Supplemental Endorsement and MS in CS Ed

This joint program was conceptualized and established with leadership in the Department of Computer Science (Dr. Brian Dorn) in close collaboration with the Teacher Education Department and Department of Computer Science. It integrates an 18 hour supplemental endorsement for teaching computer science at the graduate and undergraduate levels, and also allows teachers to go further with that endorsement into the MS in CSEd (one of the first in the country), as well as to integrate those endorsement hours into a MS in Teacher Education (STEM) if desired. It has been VERY popular with students with 35 graduates to date.

B.S. in Math, Physics, Chemistry, Biology and Geography/Geography Leading to Teacher Certification

This program was conceptualized under my collaborative leadership to offer undergraduate mathematics and science students the opportunity to earn both a mathematics degree and a teaching endorsement within a true disciplinary major. It is a model for other STEM program

possibilities. This initiative was accomplished unanimous support votes of faculty curriculum committees in both colleges, and various advising materials created. The program is well underway and led to just over $4 million in grants from the National Science Foundation.

STEM Leadership Committee, Committee Co-Chair, January 1, 2012 - Present
This UNO committee has the responsibility to lead the campus related to the STEM Priority. I currently co-lead this team along with STEM colleagues, and it has consistently had more than 50 representatives, across all UNO colleges. I help to lead and facilitate meetings, which often supports the wider metropolitan STEM community of education, business, and other partners.

UNO STEM TRAIL Center (2020)
Working with other STEM Community Chairs, we proposed a UNO STEM Teaching, Research, and Inquiry-Based Learning Center (STEM TRAIL Center), that was supported by all UNO colleges, and that was unanimously supported by the UNO Faculty Senate in 2018. The proposal was also supported by the NU Board of Regents, and the Coordinating Commission for Post-Secondary Eduation.

Curriculum Reviewer: NASA Office of Space Sciences (2005-Present)
I am a periodic reviewer of NASA educational products submitted to the NASA Space Sciences and Earth System Sciences Division. This involves serving on a panel of NASA selected educators and scientists to determine if a product can have a NASA Logo associated with it.

Nebraska Robotics Expo CoPI (2010-2020)
I was on the leadership and organization team for the Nebraska Robotics Expo, which is a larger scale team-based robotics competition, held in Nebraska at the Strategic Air and Space Museum. Nearly 3,000 students and teachers compete each year, which also includes introductions by the Governor of Nebraska, and contributions by various mayors and other public officials.

Invention Disclosures
Working with other UNO and UNL colleagues, I have had six UNeMed invention disclosures related to UNO STEM, NE STEM4U, the CEENBot Educational Robotics Platform and innovative Online Lesson Infrastructures. The online lesson infrastructure was also an invention disclosure product filed through the University of Nebraska Office of Technology Development.

Conference Organizer: National Earth System Science Annual Conference (2007)
In 2007, I helped to organize and host the national Earth System Science Education Alliance annual conference that was held in Omaha, Nebraska on August 5-8, 2007. This organization is composed of 40 universities, along with NASA and NSF representatives, and designed and delivered new online courses for teachers.

Mathematics Content Consultant on Economics Education Book
I was a mathematics education content consultant on the book project, entitled Mathematics & Economics: Connections for Life in Grades 3-5. This widely distributed resource book was published by the National Council on Economic Education: New York, New York. ISBN 1-56183-536-6, and continues to be available nationwide.

Co-Developer of the DataSlate Plus Sampler Lessons and Teacher Guide (2002/2003) – NASA Approved Product: This curriculum product was a formally approved for broad distribution

from the NASA Earth Sciences Education Division. This was a joint project, with final phases completed in 2003, and conducted under leadership at the Jet Propulsion Laboratory. It involved the writing of science, mathematics, and technology-based lessons which used the Jet Propulsion Lab's new imaging software (DataSlate) and resulted in a NASA approved CD which will be given away freely to classroom teachers around the country and world. I led the curriculum development team on the project with local area science and mathematics teachers.

Special Issue – NASA Technology Today (1998)
I also helped facilitate and provide information for a special issue of the NASA publication: Blasting Off to a Brighter Future, associated with the NASA Journal: Technology Today, 1998. This issue showcased my early work at UNO in the Space Shuttle Simulation Educational Learning Laboratory, which was also visited by NASA Administrator Dan Golden.

PROFESSIONAL ASSOCIATION MEMBERSHIPS
The National Collaborative of STEM Ecosystems (STEM Funders Network)
The National Council of Teachers of Mathematics
The National Council of Supervisors of Mathematics
The Association for the Advancement of Computers in Education
The American Geophysical Union
The International Technology in Education Association
The Nebraska Association of Teachers of Mathematics
The Nebraska Educational Technology Association

SELECTED UNIVERSITY OR NATIONAL COMMITTEES SERVED
UNO Office of Research and Creative Activity Faculty Advisory Committee (Co-Chair)
NU Outstanding Teaching and Instructional Creative Activity Selection Committee (Chair)
Teacher Education Department Advisory Committee (Chair)
Early Childhood and Elementary Mathematics Position Search Committee (Chair)
UNO STEM Leadership Committee (Chair)
UNO Chancellor's Transition Council
The Omaha Citywide STEM Ecosystem Steering Committee (UNO Lead)
The University of Nebraska K12 Science Standards Review Committee (UNO lead)
The UNMC and UNO E-Learning Partnership (UNO Lead)
Elementary Mathematics Committee
UNO Computer Science Graduate Program Committee
UNO Office of STEM Education (Co-Director)
NASA Earth System Science Education Alliance Advisory Group
NSF ITEST Program Embedded Assessment Working Group
Chancellor's Task Force on University Research
NASA Nebraska/ EPSCORE Advisory Board and Outreach Committee
University Graduate Council
Elementary Mathematics Committee
Nebraska Community Learning Center Committee
Algebra Steering Committee
Master of Arts for Teachers of Mathematics Advisory Committee
Teacher Education Department Graduate Program Committee
University Committee on Computer Usage
College of Education Reappointment, Promotion, and Tenure Committee (Chaired/Co-Chaired)

Nebraska Statewide Systemic Initiative for Mathematics Education
Nebraska Mathematics Teacher Educators Association
Omaha 2000 Goal #4 Education Committee
Key Search Committees: Haddix Community Chair in Mathematics, Haddix Community Chair in Science, Haddix Community Chair of Physical Science, Union Pacific Community Chair in Computer Science, Discipline Based Education Research in Science, Associate Professor in Educational Leadership, Elementary Math Position, UNO STEM Outreach Coordinator (also supervisor), and the Director of the Omaha STEM Ecosystem (also supervisor), the Early-Childhood and Elementary Math Search Committee.

OTHER HONORS AND AWARDS (NOT LISTED PREVIOUSLY – NON-UNO)

- Lewis and Clark Middle School Trailblazer Award for Community Participation, 2009
- Fourth Degree Black Belt (Tae Kwon Do), Nebraska Academy of Martial Arts, 2007
- Third Degree Black Belt (Tae Kwon Do), Nebraska Academy of Martial Arts, 2004
- Certified Instructor (Tae Kwon Do), Nebraska Academy of Martial Arts, 2003
- Second Degree Black Belt (Tae Kwon Do), Nebraska Academy of Martial Arts, 2001
- First Degree Black Belt (Tae Kwon Do), Nebraska Academy of Martial Arts, 1999
- ISU PASE Graduate Student Scholarship 1987-1988.
- U.S. Marine Corps Awards included four meritorious promotions (to Sergeant), Marine of the Month, and three meritorious commendations for outstanding performance of duties.

REFERENCES

[UNO] Dr. Brian Dorn
Associate Dean, College of IS&T
University of NE at Omaha
Columbus, NE 68182
(402) 554-4905
bdorn@unomaha.edu

[UNO] Dean Emerita Nancy Edick
College Ed, Health, & Human Sci
University of NE at Omaha
Omaha, NE 68182
(402) 554.2991
nedick@unomaha.edu

[UNO] Dr. Kelly Gomez Johnson
Chair, Teacher Education
University of NE at Omaha
Omaha, NE 68182
(402) 554-4140
kgomezjohnson@unomaha.edu

[UNO] Dr. Nick Stergio, Asst. Dean
Division of Biomechanics
University of NE – Omaha
Omaha, NE 68182
(402) 554-3228
nstergiou@unomaha.edu

[UNL] Dr. Brad Barker
Professor (Former NSF PO)
University of Nebraska Lincoln
Lincoln, Nebraska 68583
(402) 472-9008
bbarker1@unl.edu

[UNMC] Dr. Dele Davies
Senior Vice Chancellor for Acad. Affairs
University of Nebraska Medical Center
987810 Nebraska Medical Center, Omaha
(402) 559-5130
dele.davies@unmc.edu