

Dr. Carmen H. Fies
Associate Professor
The University of Texas at San Antonio

Department of Interdisciplinary Learning &
Teaching
College of Education and Human Development
The University of Texas at San Antonio
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Web Address:

Education

Doctor of Philosophy, Science Education, The University of Texas at Austin

Master of Science, Environmental Science, The University of Texas at San Antonio

Bachelor of Science, Multidisciplinary Science, The University of Texas at San Antonio

Academic Positions

- 2015 - Present Associate Professor - College of Science, Department of Chemistry, The University of Texas at San Antonio
- 2011 - Present Associate Professor - College of Education and Human Development, Department of Interdisciplinary Learning and Teaching, The University of Texas at San Antonio
- 2005 - 2011 Assistant Professor - Department of Interdisciplinary Learning and Teaching, The University of Texas at San Antonio
- 2001 - 2005 Adjunct Professor - Department of Interdisciplinary Studies and Curriculum and Instruction, The University of Texas at San Antonio
- 1999 - 2002 Adjunct Professor - Environmental Science Program, City Colleges of Chicago, Harold Washington College, European Division
- 2000 Adjunct Professor - Biology Program, University of Maryland University College, European Division

Administrative Assignments

- 2015 - Present Co-Director, UTSA: UTeachSA
- 2015 - 2018 Director, UTSA-COEHD: Center for Military Families
- 2017 - 2018 Faculty-in-Residence, UTSA Lab School @ CAST Tech High School
- 2013 - 2017 Coordinator, UTSA-COEHD-ILT: IDS Science Laboratories
- 2012 - 2016 Coordinator, UTSA-COEHD-ILT: IDS Undergraduate Degree Program
- 2005 - 2012 Coordinator, UTSA-COEHD-ILT: IST Graduate Degree Program
- 2011 Visiting Scholar, P-20 Initiatives, The University of Texas at San Antonio
- 2001 - 2005 Coordinator, UTSA-COEHD-ILT: IDS Science Laboratories

Research Interests

Emergent technologies in STEM Education, with diverse learners in formal and informal settings.

SCHOLARSHIP/RESEARCH/CREATIVE WORKS

Book chapters

2018

- 6. Fies, C. H. (2018). Integrating Technology Institutionally. In John I. Liontas and Margo DelliCarpini (Eds.), *TESOL Encyclopedia of English Language Teaching*. Wiley.
- 5. Fies, C. H. (2018). Second Life and Professional Development. In John I. Liontas and Margo DelliCarpini (Eds.), *TESOL Encyclopedia of English Language Teaching*. Wiley.

2016

- 4. Fies, C. H., & Kulhanek, J. (2016). What the data tell us: The Transfer Academy for Tomorrow’s Engineers (TATE). In Stephen Handel and Eileen Stempel (Eds.), *Promising Practices* (pp. 51-59). Dahlenega, GA: University of North Georgia Press.

2006

- 3. Fies, C. H. (2006). Mathematical patterns. In S. Kimball & M. Hudson (Eds.), *Diversity in Thinking and Research*. Pearson Custom Publishing.

2003

2. Fies, C. H. (2003). On the nature of mathematics. In M. Martinello, G. E. Cook, L. T. Woodson and S. B. Kimball (Eds.), *Modes of Inquiry: Voices of Scholars Across the Fields of Study*. Mason, OH: Thomson Learning.

2003

1. Fies, C. H. (2003). Electricity, Magnetism, and Electromagnetism. In D. Mason, K. C. Mittag & S. E. Taylor (Eds.), *Integrating Mathematics, Science, and Technology: A Skill-Building Approach* (pp. 82-100). Boston, MA: Allyn & Bacon.

Journal Articles

2011

11. Fies, C. H., & Langman, J. (2011). Bridging Worlds: Measuring Learners' Discursive Practice in a PartSim Supported Biology Lesson. *International Journal of Science and Mathematics Education*, 9, 1415-1438.

2010

10. Langman, J., & Fies, C. H. (2010). Classroom response system-mediated science learning with English language learners. *Language and Education*, 24(2), 81-99.

2008

9. Fies, C. H., & Mason, D. (2008). Clip Clues: Discovering Chemical Formulas. *Journal of Chemistry Education*, 85(12), 1648A.
8. Fies, C. H. (2008). Online Jigsaw Science Inquiry for Preservice Teachers. *Journal of Computing in Teacher Education*, 24(3).
7. Fies, C. H., & Marshall, J. (2008). The C₃ Framework: Evaluating Classroom Response System Interactions in University Classrooms. *Journal of Science Education and Technology*, 17(5), 483-499.

2007

6. Fies, C. H., & Moseley, C. (2007). Rainsticks: Integrating culture, folklore, and the physics of sound. *Science Activities: Classroom Projects and Curriculum Ideas*, 44(1), 2-5.
5. Fies, C. H. (2007). Research summary: Digital technologies in mathematics and science education [Electronic Version]. *NMSA Research Summaries*. nmsa.org/ResearchSummaries/DigitalTechnology/tabid/1486/Default.aspx

2006

4. Fies, C. H., & Marshall, J. (2006). Classroom Response Systems: A review of the literature. *Journal of Science Education and Technology*, 15(1), 101-110.

2004

3. Mason, D., Fies, C. H., Taylor, S. E., & Mittag, K. C. (2004). How scientists

communicate with numbers. *Texas Mathematics Teacher*, *LI*(1), 14-21.

2003

2. Birnbaum, S. J., Fies, C. H., & Swanson, E. (2003). Determining what students know in real time, not geologic time, in large classes. *Geological Society of America Abstracts with Program*, *34*(7), 440.

1999

1. Emery, S., Fies, C. H., Hester, E., & McClusky, J. (1999). Unexpected anti-Markovnikov addition to 1-methoxy-1,3-cyclohexadiene. *Journal of Organic Chemistry*, *64*(11), 3788-3789.

Journal, Abstract

2005

1. Fies, C. H., & Marshall, J. (2005). Electronic Response Systems in classrooms. *AAPT Announcer*, *34*(4), 111.

Conference Proceedings

2017

7. Ferrer, V., Perdomo, A., Rashed-Ali, H. M., Fies, C. H., & Quarles, J. P. (2017). Virtual Humans for Temperature Visualization in a Tangible Augmented Reality Educational Game. IEEE.
<https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbmx2cmRlbHJhcXneDo2NjgzYzA1ODBkZTczMWVj>

2014

6. Rashed-Ali, H. M., Quarles, J. P., Fies, C. H., & Sanciu, L. (2014). Use of augmented-reality in teaching energy efficiency: prototype development and testing. Honolulu: ARCC/EAAE 2014 International Conference: New Intersections and Connections. <http://www.arch.hawaii.edu/arcc-eaae2014/>

2013

5. Ferrer, V., Perdomo, A., Rashed-Ali, H. M., Fies, C. H., & Quarles, J. P. (2013). How Does Usability Impact Motivation in Augmented Reality Serious Games for Education? Bournemouth University: Fifth International Conference on Games and Virtual Worlds for Serious Applications 2013 (VS-Games 2013).
4. Fies, C. H., Quarles, J. P., Rashed-Ali, H. M., & Dancer, D. (2013). Teacher Dispositions toward Augmented Reality (AR). (pp. 3148-3153). Chesapeake, VA: SITE Proceedings. www.editlib.org/p/48578

2008

3. Fies, C. H. (2008). Tech Support: Learning to Teach with Technology. Electronic Proceedings of the International Conference on Technology in Collegiate Mathematics (ICTCM). archives.math.utk.edu/ICTCM/v20.html
2. Fies, C. H., & Mittag, K. (2008). Various Ideas to Integrate Mathematics, Science

and Technology in the Classroom. Electronic Proceedings of the International Conference on Technology in Collegiate Mathematics (ICTCM).
archives.math.utk.edu/ICTCM/v20.html

2007

1. Langman, J., & Fies, C. H. (2007). Technology-mediated science inquiry: Moving from everyday to classroom science, moving from native language to English. In C. Crawford et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2007* (pp. 3434-3436). Chesapeake, VA: AACE.

Magazine/Trade Publication

2014

1. Fies, C. H., Merchant, B., & Splitek, D. F. (2014). Caring, Collaborating & Integrating. In Cindy Simerly (Eds.), *On The Move* (vol. 8, pp. 44-46). Military Child Education Coalition (MCEC). www.MilitaryChild.org

Presentations, oral – peer reviewed

2019

10. Fies, C. H., & DeJong, S., "Physikexperiment im Unterricht," American Association of Teachers of German, Fall 2019, Temple, TX. (September 14, 2019).
9. Kulhanek, J., Shaeffer, R., & Fies, C. H., "Curriculum Alignment - It's hard work, but someone has to do it," NISTS2019, Atlanta, GA. (February 2019).

2018

8. DelliCarpini, M., Langman, J., Fies, C. H., Flores, B. B., & Claeys, L., "Creating Educational Opportunity: Creativity in Teacher Education through mutually beneficial school/university partnerships," 98th Annual Conference of the Association of Teacher Educators, Association of Teacher Education, Las Vegas, NV. (2018).
7. DelliCarpini, M., Langman, J., Flores, B. B., Fies, C. H., & Claeys, L., "Creating Educational Opportunities for ELLs Through Mutually Beneficial School-University Partnerships," TESOL 2018 International Convention & English Language Expo, Chicago, IL. (March 30, 2018).

2017

6. Kulhanek, J., Fies, C. H., & Balderrama, D., "Building Institutional Capacity for Innovative Transfer Initiatives," NISTSCON2017, National Institute for the Study of Transfer Students, Atlanta, GA. (2017).

2016

5. Fies, C. H., "3D AGILE-PBL," Innovations in Online Learning, San Antonio, TX. (May 25, 2016).
4. Kulhanek, J., Fies, C. H., & Cadenas, C. C., "Transfer Academy 2.0," 14th

Annual NISTS Conference (NISTSCON2016), National Institute for the Study of Transfer Students, Atlanta, GA. (February 5, 2016).

2015

3. Kulhanek, J., & Fies, C. H., "Improving the Transfer Experience: The Transfer Academy for Tomorrow's Engineers," SMTI/NSEC 2015, Association of Public and Land-grant Universities, New Orleans, LA. (June 2015).
2. Kulhanek, J., & Fies, C. H., "Transfer Academy for Tomorrow's Engineers (TATE) - What Do the Summative Data Say?," 13th Annual NISTS Conference (NISTSCON2015), National Institute for the Study of Transfer Students (NISTS), Atlanta, GA. (February 5, 2015).

2014

1. Kulhanek, J. (Author & Presenter), & Fies, C. H. (Author & Presenter), "Transfer Academy for Tomorrow's Engineers (TATE)," 12th Annual NISTS Conference (NISTSCON2014), National Institute for the Study of Transfer Students (NISTS), Atlanta, GA. (February 2014).

Presentations, oral – not peer reviewed

2016

11. Fies, C. H., "Military Families," TRC ASSETs Symposium, UTSA, San Antonio, TX. (September 10, 2016).

2010

10. Fies, C. H., "UTSA in Second Life," San Antonio Virtual Environments in Education and Training (SAVE-ET), San Antonio, TX. (September 2010).

2009

9. Fies, C. H., "Interdisciplinary Education in the real and virtual world," KIRA Interdisciplinary Science Seminar, Second Life (virtual world). (July 30, 2009).

2008

8. Langman, J., & Fies, C. H., "Learning through interactions: The power of participatory simulations," 2008 Academy for Teacher Excellence Research Symposium, San Antonio, TX. (November 2008).

2006

7. Fies, C. H., "Creating inquiring minds: Discovering the disciplines," Teaching, Excellence, Advancement, and Mentoring (TEAM) Center, San Antonio, TX. (April 2006).
6. Fies, C. H., "Making connections to everyday contexts," Academy for Teacher Excellence (ATE) Faculty Development, San Antonio, TX. (March 2006).

2005

5. Fies, C. H., "What do they add to an active learning environment?" Academy for Teacher Excellence Research Symposium, San Antonio, TX. (November 2005).

4. Fies, C. H., "Supporting science learning in diverse settings," TI Seed Grant Symposium, Dallas, TX. (August 2005).

2004

3. Fies, C. H., "Electronic Response Systems," The University of Texas at San Antonio, Teaching and Learning Center, San Antonio, TX. (October 2004).
2. Fies, C. H., "Distance education," The University of Texas at San Antonio, Teaching and Learning Center, San Antonio, TX. (May 2004).
1. Fies, C. H., "Constructivist use of Electronic Response Systems," Institute for Connecting Teachers and Technology - KLRN and TechConnect, San Antonio, TX. (September 2004).

Paper Presentations, peer reviewed

2015

28. Dessouky, S., Sharif, H. O., Fies, C. H., Kulhanek, J., & Xie, H., "Integrating Undergraduate Minority Students as Effective Climate Change Communicators," 7th Conference on Understanding Interventions That Broaden Participation in Science Careers, San Diego, CA. (May 2015).

2013

27. Fies, C. H., & Guven, U., "Peace Education: Comparison of Peace Education in Turkey and Texas," PJSa 2013 Conference, Peace & Justice Studies Association (PJSa), Waterloo, Ontario, Canada. (October 2013).
26. Zhou, H., & Fies, C. H., "Digital Devices: "Digital Native" Parents and Children," Innovation in Online Learning (IOL), UT System, San Antonio. (May 2013).
25. Almusaad, H. R., & Fies, C. H., "Second Life as a supportive learning environment to enhance understanding target cultures," Innovation in Online Learning (IOL), UT System, San Antonio. (May 2013).
24. Fies, C. H., Quarles, J. P., Rashed-Ali, H. M., & Dancer, D., "Teacher Dispositions toward Augmented Reality (AR)," Society for Information Technology and Teacher Education (SITE), New Orleans. (March 28, 2013).

2012

23. Romero, L., Langman, J., & Fies, C. H., "Applying SimLETS: Examining technology effects on ELLs access to high school English science discourse," TexFlec, Austin, TX. (2012).

2011

22. Langman, J., & Fies, C. H., "Students' Perception of Technology Infused High School Biology," Educational Research Association (SERA), San Antonio, TX. (February 2011).
21. Langman, J., & Fies, C. H., Co-Organizers, Symposium on Perceptions and Practices of Technology-Infused STEM Education for Diverse Learners, Southwest Educational Research Association (SERA), San Antonio, TX. (February 2011).

2010

20. Robinson, D., Villareal, T., Fies, C. H., Dunn, J., & De Leon, L., "UT System Panel: Past and Future Projects using Second Life," Undergraduate Conference, Second Life (virtual world). (June 17, 2010).
19. Guerra, M., Fies, C. H., Sanchez, J., Gutierrez, S., & Jones, S., "An Entire Statewide University System Goes Virtual," Virtual World Best Practices in Education (VWBPE), Second Life (virtual world). (March 12, 2010).

2009

18. Langman, J., & Fies, C. H., "Engagement through technology: Supporting flow in science interactions among ELLs," American Association for Applied Linguistics (AAAL) 2009 Conference, Denver, CO. (March 2009).

2008

17. Fies, C. H., "Tech Support: Learning to Teach with Technology," International Conference on Technology in Collegiate Mathematics (ICTCM), San Antonio, TX. (March 2008).
16. Mittag, K., & Fies, C. H., "Various Ideas to Integrate Mathematics, Science and Technology in the Classroom," International Conference on Technology in Collegiate Mathematics (ICTCM), San Antonio, TX. (March 2008).
15. Fies, C. H., & Mason, D., "ACT2 Presents: Clip Clues," Conference for the Advancement of Science Teaching (CAST), Ft. Worth, TX. (November 2008).
14. Bilica, K., Fies, C. H., & Martin, N., "Excavating Complexity: Scientific Literacy and the Texas Assessment of Knowledge & Skills (TAKS)," Southwest Educational Research Association (SERA), New Orleans, LA. (February 2008).

2007

13. Mason, D., & Fies, C. H., "ACT2 Presents: Clipping along: Modeling 2-D and 3-D Bonding Patterns," Conference for the Advancement of Science Teaching (CAST), Austin, TX. (November 2007).
12. Fies, C. H., Bilica, K., & Martin, N., "Decoding the TAKS," Sixth Annual San Antonio Science and Mathematics Saturday, San Antonio, TX. (October 2007).
11. Fies, C. H., & Ollerenshaw, J., "Inquiry practice: Self-study as a model of inquiry," Southwest Educational Research Association (SERA), San Antonio, TX. (February 2007).
10. Fies, C. H., & Langman, J., "Technology-mediated science inquiry with English language learners," Texas Association for Bilingual Education (TABE), San Antonio, TX. (October 2007).
9. Fies, C. H., "Developing Online Jigsaw Science Courses," Innovations in Online Learning (IOL), Austin, TX. (May 2007).

2006

8. Fies, C. H., "Dialogue or monologue? A framework for technology supported classroom communications," American Educational Research Association (AERA), San Francisco, CA. (April 2006).
7. Fies, C. H., "Dialogue or monologue? A framework for technology supported

classroom communications," Southwest Educational Research Association (SERA), Austin, TX. (February 2006).

2005

6. Fies, C. H., "Active learning technologies: The case of Classroom Response Systems," School Science and Mathematics Association (SSMA) 2005 Annual Convention, Ft. Worth, TX. (November 2005).
5. Fies, C. H., "Classroom Response Systems: myth and realities," 4th Annual San Antonio Science and Mathematics Saturday, San Antonio, TX. (October 2005).

2003

4. Fies, C. H., "Constructivist learning in large course sections through the use of Personal Response Systems (PRS)," South Central Regional Technology in Education Consortium (SRTEC), Corpus Christi, TX. (2003).

1999

3. McClusky, J., Emery, S., Fies, C. H., & Hester, E., "Remarkable electrophilic addition to 1-methoxy-1,3-cyclohexadiene," 218th National Meeting of the American Chemical Society (ACS), New Orleans. (August 24, 1999).
2. Mason, D. S., & Fies, C. H., "Identifying persistent student misconceptions in second-semester general chemistry courses," 72nd Annual Conference of the National Association for Research in Science Teaching (NARST), Boston, MA. (March 1999).

1998

1. McClusky, J., Emery, S., & Fies, C. H., "Acid catalyzed addition of methanol to 1-methoxy-1,3-cyclohexadiene: what about carbocation stability?" 216th National Meeting of the American Chemical Society (ACS), Boston. (August 1998).

Paper Presentations - Not Peer-Reviewed

2013

1. Fies, C. H., & Langman, J., "Teacher Talk: Professional Development with Elementary Teachers," International Symposium for Campus Viviente in STEM Education, Campus Viviente, New Braunfels. (October 2013).

Short Course

2015

2. Fies, C. H., "STEM Assessment Practice: Summative, Formative, and everything in between," American Society for Engineering Education - Gulf Southwest (ASEE-GSW) Annual Conference, ASEE, San Antonio. (March 26, 2015).

2012

1. Fies, C. H., Ford, R., & Mason, D., "Clip Clues for Chemistry," Conference for the Advancement of Science Teaching (CAST), Science Teachers Association of Texas, Corpus Christi, TX. (November 8, 2012).

Invited Talks

2017

6. Fies, C. H., "UTSA Virtual Campus," UTSA Academy of Distinguished Teaching Scholars Forum, UTSA, San Antonio, TX. (October 2017).

2016

5. Dietrich, G. B., Harrison, K., Firmin, L. C., & Fies, C. H., "UTSA Education Panel," Alamo ACE Conference, AFCEA, San Antonio. (December 6, 2016).
4. Fies, C. H., "Community Partnership," 2016 VA Mental Health Summit, VA, San Antonio, TX. (July 28, 2016).

2012

3. Fies, C. H., "Responding to the Cultural Commons," The Academy for the Cultural Commons, San Antonio, TX. (June 2012).

2010

2. Langman, J., & Fies, C. H., "U.S. Challenges & Solutions in Science and Technology Education: A View from the Margins: Educational experiences in South Texas. Roundtable Discussion," Meet the Future, Science & Technology International Summit 2010, Den Haag, The Netherlands. (November 2010).

2009

1. Fies, C. H., "TejanoTech: Shaping the identity of a virtual campus," San Antonio Virtual Environments in Education and Training (SAVE-ET), San Antonio, TX. (September 2009).

Contracts and Subawards - Funded

2020

2. Fies, C. H., "Subaward for NASA proposal by Space Telescope Science Institute, Lead PD/PI, 100.00%," Sponsored by Natl Aeronautics & Space Admn, \$163,921.00. (October 1, 2015 - September 30, 2020).

2018

1. Fies, C. H., "CAST Tech Faculty in Residence Contract, Lead PD/PI, 100.00%," Sponsored by San Antonio Foundation for Excellence in Education INC. d.b.a. SAISD Foundation, \$124,220.00. (July 1, 2017 - June 30, 2018).

TEACHING

Teaching Interests

Science, Technology, Engineering, and Mathematics (STEM) Education;
Instructional Technologies

Courses Taught

Doctor of Philosophy Degree in Interdisciplinary Learning and Teaching:

ILR 7893: Directed Doctoral Research
ILT 7013: Overview of Research Design for Instructional Inquiry
ILT 7143: Internship (Research & Teaching)
ILT 7733: Evaluation of Research
IST 7893: Directed Doctoral Research
ILT 7981: Doctoral Dissertation
ILT 7983: Doctoral Dissertation
IST 7013: Field Research in IST
IST 7043: Technology and Global Learning

Master of Arts Degree in Education:

C&I 5923: Mentoring (blended, including Virtual Worlds)
C&I 6303: Advanced Methods in Subject-Matter Fields: Mathematics and Science (on campus)
EDU 6983: Master's Thesis
IST 5011: Technical Skills - Animation (blended)
IST 5303: Technology in Curriculum and Instruction (blended)
IST 5323: Concepts of Teaching and Learning (blended, including Virtual Worlds)
IST 5343: Instructional Design Theory (blended, including Virtual Worlds)
IST 5363: Distance Learning and Teaching (blended, including Virtual Worlds)
IST 5383: Technology Training and Management in Educational Systems (blended)
IST 5703: Technology and Learning Cultures (blended, including Virtual Worlds; and fully online)
IST 5883: Digital Storytelling (blended and fully online)
IST 6103: Virtual Learning and Teaching (blended, including Virtual Worlds; and fully online)
IST 6353: Multimedia (blended, including Virtual Worlds)
IST 6513: Emergent Technologies in Education (blended)
IST 6951: Independent Study: Technology Skill Development (on campus)
IST 6983: Master's Thesis in IST
IST 6953: Independent Study: Virtual Worlds (blended, including Virtual Worlds)
IST 6973: Special Problems: Simulations in Mathematics and Science (blended)
ALT 6223: Distance and Blended Learning in Adult Education and Human Resource Development (blended, including Virtual Worlds)

Master of Science in Chemistry:

CHE 6983: Master's Thesis
CHE 6992: Directed Research
CHE 6993: Directed Research

Undergraduate Courses at UTSA

C&I 4203: Models of Teaching in the Content Areas of the Secondary School: Science (on campus)
COR 1203: Freshman Seminar (blended, including Virtual Worlds)

IDS 3203/2403: Physical Science (on campus and fully online)
IDS 3003: Science and Humanities (on campus and blended, including Virtual Worlds)
IDS 3201: Advanced Physical Science Laboratory (on campus and fully online)
IDS 3213: Earth and Life Science (on campus)
IDS 3234: Investigations in Physical Science (online)
IDS 4913: Independent Study
UTE 3203: Knowing and Learning
UTE 4203: Project-based Instruction

Undergraduate Courses at City Colleges of Chicago, European Division

ENVST 101: Man and Environment I (online)

ENVT 107: Environmental Geology (online)

Undergraduate Courses at University of Maryland University College, European Division

BIOL 101: Concepts of Biology (on campus)

BIOL 102: Laboratory in Biology (on campus)

BIOL 160: Human Biology (on campus)

Directed Student Learning

Master's Thesis Committee Chair, "Chinese Culture in Virtual Spaces 2019." (2019 - Present).

Advised: Wei Yan

Master's Thesis Committee Chair, "Student Understandings of Topics in General Chemistry II." (2018 - Present).

Advised: Sotheara Houy

Dissertation Committee Chair, "Learning in Virtual Worlds." Proposal, (2016 - Present).

Advised: Almusaad Haifa

Dissertation Committee Member, "Technology-mediated Music Education." In-Process, (2017 - 2019).

Advised: Ruben Rodriguez

Dissertation Committee Chair, "Robotics: The development of the academic identity of the Latina/o Bilingual Elementary Learner." Completed, (2015 - 2018).

Advised: Adrienne Guillen

Dissertation Committee Member, "Optogenetic M.E.D: Enhancing Optogenetic Education." (2015 - 2016).

Advised: Emmanuel Michaelides

Dissertation Committee Chair, "Utilizing structured online discussion as course work component to promote critical thinking in higher education." Completed, (December 2014 - December 2015).

Advised: Hong Zhou

Dissertation Committee Chair, "Robotics: The Impact of Storytelling." Proposal, (2013 - 2014).

Advised: Andrew Schuetze

Dissertation Committee Member, "Politics in the Curriculum." Completed, (2012 - 2013).

Advised: Debra Root

Dissertation Committee Chair, "Mobile Learning In Higher Education." Completed, (2011 - 2012).

Advised: Lucretia Fraga

Honors Thesis, "Why Girls Are Behind in Math and Science and What Teachers Can Do to Help." Completed, (2011 - 2012).

Advised: Alexandra Villalobos

Honors Thesis, "Literacy in the Content Areas." Completed, (2011 - 2012).

Advised: Jessica Sigl

Master's Thesis Committee Member, "Usability of Mobile Phone Augmented Reality in Educational Simulation." Completed, (2011 - 2012).

Advised: Ferrer Vicente

Master's Thesis Committee Chair, "Peace Education: Comparison of Turkey's and Texas' primary school curricula." Completed, (2010 - 2011).

Advised: Ufuk Guven

Dissertation Committee Member, "Classroom Response Systems: Using Task-Technology Fit to Explore Impact Potential." Completed, (2009 - 2010).

Advised: Kenneth Jones

Master's Thesis Committee Chair, "Professional Development Strategies to Integrate Technology into Writing Instruction." Completed, (2009).

Advised: Jacob Sanchez

Master's Thesis Committee Member, "Evaluation of the Garden Mosaics Program for Teaching Science Literacy through an Environmental Approach." Completed, (2005 - 2006).

Advised: Sonia Cabrera

Academic Advising

2005 - Present Advised 288 Graduate Students

SERVICE

Department Service

- 2019 - Present Committee Member, Search Committee, Assistant/Associate Professor-ILT-STEM Education, UTSA.
- 2019 - Present Committee Member, F&A Committee, UTSA.
- 2019 - Present Committee Chair, Interdisciplinary Studies Program Committee, UTSA.
- 2012 - Present Lead Faculty, Interdisciplinary Studies Undergraduate Program (IDS), UTSA. Varied course sets over time
- 2011 - Present Committee Member, Department Faculty Review Advisory Committee (DFRAC), The University of Texas at San Antonio.
- 2006 - Present Committee Member, Department Academic Policy and Curriculum Committee (DAPC), The University of Texas at San Antonio.
- 2016 - 2017 Committee Member, Search Committee: C&I/IDS Science, UTSA.
- 2012 - 2016 Committee Member, ILT Leadership Team, UTSA.
- 2012 - 2016 Committee Chair, Interdisciplinary Studies Program Committee, UTSA.
- 2013 - 2015 Committee Member, Department Faculty Review Advisory Committee (DFRAC) Sub-committee, Second Year Reviews, UTSA.
- 2013 - 2015 Committee Member, Search Committee: C&I (Science), UTSA.
- 2011 - 2015 Committee Member, Graduate Program Committee, The University of Texas at San Antonio.
- 2013 - 2014 Committee Chair, Search Committee: IDS, UTSA.
- 2012 - 2014 Committee Chair, IDS STEM Workgroup.
- 2011 - 2014 Committee Member, ILT Ad hoc Committee: Doctoral Research, The University of Texas at San Antonio.
- 2012 Committee Member, Ad hoc Committee: Doctoral Admissions, The University of Texas at San Antonio.
- 2011 - 2012 Committee Member, Search Committee: Science or Mathematics Educator, The University of Texas at San Antonio.
- 2005 - 2012 Program Facilitator, Instructional Technology graduate program, The

- University of Texas at San Antonio.
- 2009 - 2011 Committee Member, ILT Ad hoc Committee: By-laws, The University of Texas at San Antonio.
 - 2006 - 2010 Committee Member, Instructional Technology (IST) program Comprehensive Exam, The University of Texas at San Antonio.
 - 2006 - 2010 Lead Faculty, Interdisciplinary Studies Undergraduate Program (IDS 2083, 2403, 3003, 3201), The University of Texas at San Antonio.
 - 2005 - 2010 Program Facilitator, ILT Program Committee: Instructional Technology, The University of Texas at San Antonio.
 - 2009 Committee Member, ILT Ad hoc Committee: ILT Doctoral Admissions, The University of Texas at San Antonio.
 - 2008 - 2009 Committee Member, Search Committee: Instructional Technology, The University of Texas at San Antonio.
 - 2008 Committee Member, ILT Doctoral Course Development Committee, The University of Texas at San Antonio.
 - 2008 Committee Chair, ILT Doctoral Procedures Committee, The University of Texas at San Antonio.
 - 2008 Committee Chair, ILT Doctoral Recruitment Committee, The University of Texas at San Antonio.
 - 2008 Committee Chair, Search committee: Interdisciplinary Studies, The University of Texas at San Antonio.
 - 2007 - 2008 Committee Member, ILT Program Committee: Secondary Studies, The University of Texas at San Antonio.
 - 2006 - 2008 Committee Member, Curriculum and Instruction (C&I) Comprehensive Exam, The University of Texas at San Antonio.
 - 2005 - 2008 Faculty Advisor, Curriculum and Instruction program, The University of Texas at San Antonio. Graduate Advisor to students in the Curriculum and Instruction program
 - 2005 - 2008 Committee Member, ILT Program Committee: Curriculum and Instruction, The University of Texas at San Antonio.
 - 2005 - 2008 Committee Member, ILT Program Committee: Interdisciplinary Studies,

- The University of Texas at San Antonio.
- 2006 - 2007 Committee Member, Department Advisory Committee, The University of Texas at San Antonio.
- 2006 - 2007 Committee Member, ILT Ad hoc Committee: Graduate Assessment, The University of Texas at San Antonio.
- 2006 - 2007 Committee Member, ILT Ad hoc Committee: Online Studies, The University of Texas at San Antonio.
- 2006 - 2007 Committee Member, Search Committee: C&I Social Studies, The University of Texas at San Antonio.
- 2006 - 2007 Committee Member, Search Committee: Curriculum and Instruction - Social Studies, The University of Texas at San Antonio.
- 2006 Faculty Advisor, Technology integration support for RDG 0012 Hybrid Course Development, The University of Texas at San Antonio.
- 2006 Committee Member, Vision and Mission Committee, The University of Texas at San Antonio.
- 2005 - 2006 Committee Member, ILT Ad hoc Committee: e-Portfolio, The University of Texas at San Antonio.
- 2005 - 2006 Committee Member, ILT Advisory Committee: Interdisciplinary Studies, The University of Texas at San Antonio.
- 2005 - 2006 Lead Faculty, Interdisciplinary Studies undergraduate program (IDS 3003, 3201, 3203, 3211, 3213), The University of Texas at San Antonio.
- 2005 Committee Member, ILT Ad hoc Committee: MA in Education, Science Emphasis, The University of Texas at San Antonio.
- 2005 Reviewer, MAECIT Applicant Pool Review, The University of Texas at San Antonio.
- 2003 - 2004 Committee Member, DISCI Ad hoc Committee: e-Portfolio, The University of Texas at San Antonio.
- 2002 - 2004 Committee Chair, DISCI Learning Resource Fee Committee, The University of Texas at San Antonio.
- 2001 - 2004 Laboratory Administrator, Interdisciplinary Studies science laboratory supervision and administration, The University of Texas at San Antonio.

- 2003 Committee Member, DISCI Ad hoc Committee: Post-baccalaureate Programs, The University of Texas at San Antonio.
- 2001 Committee Member, DISCI Ad hoc Committee: Curriculum and Instruction Course Development, The University of Texas at San Antonio.

College Service

- 2018 - Present Committee Member, COEHD Teacher Advisory Committee.
- 2016 - 2018 Committee Member, COEHD Faculty Research Award Committee, UTSA.
- 2013 - 2018 Committee Member, COEHD RSC Faculty Advisory Board, UTSA.
- 2014 - 2015 Committee Member, COEHD Faculty Development Leave Committee, UTSA.
- 2013 - 2014 Committee Member, Deans' Advisory Committee, UTSA.
- 2012 - 2013 Committee Member, College Academic Policy and Curricula Committee (CAPCC), UTSA.
- 2010 - 2011 Committee Member, COEHD Ad hoc Scholarship Committee, The University of Texas at San Antonio.
- 2007 - 2011 Committee Member, COEHD College Technology Committee, The University of Texas at San Antonio.
- 2009 - 2010 Committee Member, Science and Mathematics Teacher Imperative (SMTI), The University of Texas at San Antonio.
- 2007 - 2008 Committee Member, COEHD Appeals Committee, The University of Texas at San Antonio.
- 2005 - 2008 Committee Member, COEHD Executive Graduate Program Committee, The University of Texas at San Antonio.
- 2007 Committee Member, COEHD Special Opportunity Hire Committee, The University of Texas at San Antonio.

- 2006 Co-Facilitator, Academy of Teacher Excellence (ATE) Professional Development Book Group, The University of Texas at San Antonio.
- 2006 Committee Member, COEHD Roadrunner Day Committee, The University of Texas at San Antonio.
- 2006 Committee Chair, COEHD Roadrunner Day Skit Committee, The University of Texas at San Antonio.
- 2005 - 2006 Committee Member, COEHD Ad-Hoc Technology Committee, The University of Texas at San Antonio.

University Service

- 2019 - Present Committee Member, Assistant, Associate, Full Professor-Cluster Hire - Augmented and Virtual Reality - Computing Education, UTSA.
- 2019 - Present Committee Member, Search Committee, Assistant Professor-Mathematics (Math Ed), UTSA.
- 2019 - Present Committee Member, Search Committee, Assistant, Associate, Full Professor - Cluster Hire - Augmented Reality/Virtual Reality - XR Human Factors/Human Computer Interaction, UTSA.
- 2019 - Present Committee Member, Search Committee, Assistant, Associate, Full Professor-Cluster Hire-Augmented Reality/Virtual Reality - Immersive Technology, UTSA.
- 2019 - Present Committee Member, UTSA Honors College Advancement Council, UTSA.
- 2015 - Present Committee Member, Chemistry Education Research Group, UTSA.
- 2016 - 2018 Veteran Services Advisory Committee.
- 2013 - 2018 Committee Member, Limited Submission Review Panel, UTSA.
- 2014 - 2017 Student Org Advisor (Non-Professional Org), IDS Ambassador Student Organization, UTSA.
- 2006 - 2016 Committee Member, UTSA Honors Advisory Committee, The University of Texas at San Antonio.
- 2014 - 2015 Committee Member, Organizing Committee: American Society for Engineering Education (ASEE) Gulf Southwest (GSW) 2015 Conference Committee, UTSA.

- 2010 - 2015 Special Institutional Assignment, Representative, Memorandum of Understanding, UTSA. Development of a Memorandum of Understanding between The University of Texas at San Antonio and The University of Western Australia regarding Research and Collaboration using Second Life as a Virtual Learning Space.
- 2012 - 2013 Committee Member, QLP Program: Proposal Review Committee, UTSA.
- 2011 - 2012 Committee Member, Honors College: Alvarez Fund Selection Committee, The University of Texas at San Antonio.
- 2011 - 2012 Committee Member, Search Committee: Mathematics Educator, College of Science, The University of Texas at San Antonio.
- 2011 Committee Member, QEP Program: Proposal Review Committee, UTSA.
- 2009 - 2010 Committee Member, UTSA Global Change Initiative, The University of Texas at San Antonio.
- 2009 - 2010 Committee Member, UTSA Virtual Learning Community Initiative Committee, The University of Texas at San Antonio.
- 2007 - 2010 Committee Member, COEHD-COS Science, Technology, Engineering, and Mathematics (STEM) Workgroup, The University of Texas at San Antonio.
- 2007 - 2009 Committee Member, Search Committee: Chemistry Educator, College of Science, The University of Texas at San Antonio.
- 2001 - 2009 Faculty Member, UTSA Commencement and Convocation Ceremonies, The University of Texas at San Antonio.
- 2008 Committee Member, North American Energy Summit Organizing Committee, The University of Texas at San Antonio.
- 2008 Committee Member, Science Educators' Steering Committee, The University of Texas at San Antonio.
- 2008 Committee Member, University Review Committee, The University of Texas at San Antonio.
- 2007 - 2008 Committee Member, UTSA Energy Initiative, The University of Texas at San Antonio.

- 2006 - 2008 Committee Member, UTSA Teaching, Excellence, Advancement, and Mentoring (TEAM) Center Advisory Committee, The University of Texas at San Antonio.
- 2006 Discussant, UTSA Teaching and Learning Center Panel: New Faculty Orientation, The University of Texas at San Antonio.
- 2004 - 2006 Member, UTSA Teaching and Learning Center, The University of Texas at San Antonio.
- 2005 Committee Member, UTSA Diversity Committee - National Coalition Building Institute, The University of Texas at San Antonio.
- 2005 Discussant, UTSA Teaching and Learning Center Panel: Teaching Assistant Orientation, The University of Texas at San Antonio.
- 2004 Committee Member, Search Committee: Director of the Teaching and Learning Center, The University of Texas at San Antonio.

UT System Service

- 2016 - Present Advisory Board Member, UTHSCSA: SEPA Advisory Board, UT System.
- 2009 - 2011 Committee Member, UT System: Virtual Learning Community Initiative, UT System.

Professional Service

- 2018 - Present Reviewer, Journal of Educational Change
- 2018 - Present Committee Member, Alamo STEM Ecosystem, San Antonio, TX.
- 2017 - Present Editorial Review Board Member, International Journal of Science and Mathematics Education (IJSME).
- 2017 - Present Committee Member, San Antonio STEM Council.
- 2015 - Present Event Judge, German Sprachfest Competition.
- 2011 - Present Reviewer, Journal of Science Education and Technology
- 2007 - Present Reviewer, International Journal of Science and Mathematics Education. Editor requested my involvement based on my expertise in science

- education and the use of instructional technologies.
- 2019 - 2020 Conference Coordinator, Organizer, 2020 Alamo STEM Ecosystem Conference, San Antonio, TX. Served as co-chair for the conference.
- 2019 - 2020 Conference Co-Chair, Alamo STEM Professional Development Conference, San Antonio, TX.
- 2017 - 2019 Committee Member, Military Task Force Advisory Committee, Judson Independent School District.
- 2016 - 2018 Committee Member, STEM Task Force, Judson Independent School District.
- 2015 - 2018 Member, DoDEA STEM Grant Advisory Committee, Live Oak, TX.
- 2016 - 2017 Committee Member, CAST Tech Education/Design Committee, San Antonio, TX.
- 2014 - 2015 Reviewer, Conference Paper, American Society for Engineering Education (ASEE).
- 2014 - 2015 Member, Organizing Committee, 2015 ASEE-GSW Annual Conference, San Antonio, TX.
- 2011 - 2015 Editorial Review Board Member, Journal of Curriculum and Teaching.
- 2015 Member, Texas Regional STEM Degree Accelerator, San Antonio STEM Summit 2015, San Antonio, TX.
- 2013 - 2014 Program Committee Member, Special Issue on Interaction in Massive Courses, Journal of Universal Computer Science.
- 2012 - 2014 Chair, Judging Committee, Texas State Science and Engineering Fair, San Antonio, TX.
- 2013 Member, NSF Review Panel, Washington, D.C.
- 2003 - 2010 Event Judge, German Sprachfest Competition.
- 2009 Member, American Association for Applied Linguistics (AAAL).
- 2009 Member, American Educational Research Association (AERA).
- 2009 Member, Associated Chemistry Teachers of Texas (ACT2).
- 2009 Reviewer, Journal Article, Journal of Geography in Higher Education.

- Editor requested my involvement based on my expertise regarding the use of instructional technologies.
- 2009 Member, National Science Teacher Association (NSTA).
 - 2009 Member, Science Teacher Association of Texas (STAT).
 - 2009 Member, Society for Information Technology & Teacher Education (SITE).
 - 2009 Member, Texas Science Education Leadership Association (TSELA).
 - 2009 Event Judge, Texas State Science and Engineering Fair.
 - 2009 Member, The Alamo District Council of Teachers of Mathematics (ADCTM).
 - 2009 Instructor, UTSA Training Post Course CT0941 "Second Life Building Series, Part I: Basic Building".
 - 2007 - 2009 Event Judge, German Sprachfest Competition.
 - 2008 Reviewer, Journal Article, Journal of Computer Assisted Learning. Editor requested my involvement based on my expertise in the use of instructional technologies.
 - 2008 Reviewer, Journal Article, Journal of Science Education and Technology. Editor requested my involvement based on my expertise in science education and the use of instructional technologies.
 - 2005 - 2008 Committee Chair, Texas State Science and Engineering Fair Judges Committee.
 - 2007 Event Judge, Alamo Regional Academy of Science and Engineering Fair.
 - 2007 Committee Chair, San Antonio Science and Mathematics Saturday, Program Committee.
 - 2007 Reviewer, Conference Paper, Society for Information Technology and Teacher Education. Served as discussant for the Society for Information Technology and Teacher Education International Conference
 - 2007 Reviewer, Conference Paper, Southwest Educational Research Association. Served as discussant for a research cluster during the 2007 Southwest Educational Research Association (SERA) Conference.

- 2005 Reviewer, Conference Paper, AERA. Proposal reviewer for Division C: Learning and Instruction, Section 7, as well as for Division K: Teaching and Teacher Education, Section 5
- 2005 Event Judge, Comal ISD Middle School Science Fair.
- 2005 Event Support, Texas Academic Decathlon.
- 2002 - 2005 Event Judge, Alamo Regional Academy of Science and Engineering Fair.
- 2004 Co-Organizer, South Central Regional Technology in Education Consortium Meeting.
- 2002 - 2003 Member, San Antonio Science Leaders Group.

Public Service

- 2016 - 2018 Attendee, Navy Recruiting District San Antonio - Recruiting District Assistance Council (RDAC).
- 2016 - 2017 Member, VA Hospital: Summit Committee, San Antonio, TX. Community partnership: part of the planning committee of the 2016 VA Mental Health Summit, as well as panelist at the event.

Awards, Honors, and Biographical Listings

- 2011 Tenured and Tenure-Track Excellence in Community Service Award, College of Education and Human Development, Distinguished Achievement Awards 2011
- 2006 Southwest Educational Research Association (SERA) Outstanding Paper Award: Dialogue or Monologue? A Framework for Technology Supported Classroom Communications
- 2005 Academy for Teacher Excellence (ATE) Doctoral Fellowship, University of Texas at San Antonio
- 2005 Student recognition for excellence, UTSA Honors Alliance
- 2004 Adjunct Presidential Award for Excellence in Teaching, University of Texas at San Antonio
- 2001 UT Austin Graduate Fellow, University of Texas at Austin

Media Contributions

- 2017 San Antonio Express News
- 2016 KLRN - Key Messages - Military Families and Education

Faculty Development Activities Attended

- 2017 Conference Attendance, National Training Seminar, Military Children: A Constellation of Strengths and Challenges, Military Child Education Coalition, Washington, D.C.
- 2016 STEM Education Institute, NASA Pre-Service Teacher Institute (NASA-PSTI), NASA
- 2016 Workshop, Supporting Veteran's Children through Transitions, Military Child Education Coalition, San Antonio, TX
- 2015 Workshop, Responding to the Military Child with Exceptional Needs, Military Child Education Coalition, San Antonio, TX
- 2014 Workshop, Sharing the Adventure with the Student: Exploring the Intersections of NASA Space Science and Education, National Research Council Space Studies Board, Washington, D.C.
- 2014 STEM Education Institute, NASA Pre-Service Teacher Institute (NASA-PSTI), NASA, Houston, TX
- 2012 Public Engagement, Living in the New Normal Public Engagement, Military Child Education Coalition, Austin, TX
- 2009 Workshop, SMART Interactive Whiteboard and Notebook Training, The University of Texas at San Antonio
- 2009 Workshop, The Provost's Academy on Critical Thinking, The University of Texas at San Antonio
- 2007 Workshop, TI-NetLogo Programming, Dallas, TX
- 2007 Seminar, Aiming for Excellence in Mathematics Teacher Preparation, College Station, TX
- 2002 Workshop, Physics First, American Chemical Society (ACS)
- 2002 Workshop, Science Professional Development; Texas Science Summit

External Connections and Partnerships

2016	Alamo Chapter of the Armed Forces Communication & Electronics Association (AFCEA), San Antonio, TX
2016	USAA, San Antonio, Tx
2016	Family Endeavors, San Antonio, TX
2016	JBSA Military and Family Services Flight, San Antonio, TX
2016	Military Child Education Coalition, San Antonio, TX
2016	United Service Organizations (USO), San Antonio, TX
2016	VA Hospital - South Texas Veterans Health Care System (STVHCS), San Antonio, TX