



AUDIT & BUSINESS COMMITTEE

September 24, 2026

Roaden University Center, Room 282

AGENDA

- I. Call to Order
- II. Approval of Minutes
- III. Financial Update
- IV. Out-of-State Tuition
- V. Organizational Chart Change
- VI. Revised Capital Budget
- VII. Disclosed Project
- VIII. Employee Performance Evaluations & Performance-Based Compensation Analysis
- IX. Tenure Upon Appointment and Recommendations
- X. Adjournment of Open Session and Call to Order of Non-Public Executive Session to Discuss Audits, Investigations, Litigation, and Matters Deemed Not Subject to Public Inspection Pursuant to T.C.A. § 4-35-108(b)(1)-(3)
- XI. Adjournment



AUDIT & BUSINESS COMMITTEE

June 25, 2026

Roaden University Center, Room 282

MINUTES

Meeting was streamed live via link found on this web page:

<https://www.tntech.edu/board/board-and-board-committee-meetings.php>

AGENDA ITEM 1 – Call to Order

The Tennessee Tech Board of Trustees Audit & Business Committee met on June 25, 2026, in Roaden University Center Room 282. Committee member Thomas Lynn was absent; therefore, Board Chair Rhedona Rose acted as a voting member for this meeting as allowed per Policy 005, Board Committees. Chair Tom Jones called the meeting to order at 10:06 a.m.

Chair Jones asked Mr. Lee Wray, Secretary, to call the roll. The following members were present:

- Tom Jones
- Rhedona Rose
- Barry Wilmore

Other board members also in attendance were Fred Lowery, Trudy Harper, Michael Allen, Teresa Chasteen-Dunn, Garry McNabb, Camron Rudd, and Braxton Westbrook. A quorum was physically present. Tennessee Tech faculty, staff, and members of the public were also in attendance.

AGENDA ITEM 2 – Approval of Minutes

Tom Jones asked for approval of the minutes of the March 12, 2026, Audit & Business Committee meeting. Chair Jones asked if there were questions or comments regarding the minutes. There being none, Barry Wilmore moved to recommend approval of the March 12, 2026, Audit & Business Committee minutes. Rhedona Rose seconded the motion. Lee Wray called a voice call vote. The motion carried unanimously.

AGENDA ITEM 3 – FY2025-26 Estimated and FY2026-27 Proposed Budgets

Dr. Claire Stinson presented information on the changes in E & G revenues, functional expenses, and natural expenses (Attachment A).

Rhedona Rose moved to send the FY2025-26 Estimated and FY2026-27 Proposed Budgets and organizational chart to the Board for approval and to place it on the Board's regular agenda. Barry Wilmore seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 4 – Capital Budget FY2027-28

Dr. Claire Stinson, Sr. Vice President for Planning and Finance, presented the FY2027-28 Capital Budget requests. The capital outlay request for new construction is a Life Science Building and a Social Sciences Building and a major renovation of Infrastructure Upgrades. The Life Sciences Building project description is to construct a new facility for the Life Sciences programs. The Social Sciences Building project includes demolishing Matthews Daniel and Crawford Halls to construct a new building that will provide classrooms, faculty offices, and support spaces for the colleges of Education and Arts & Sciences. The Infrastructure Upgrades project includes campus-wide utility infrastructure improvements, including central plant, steam, chilled water, and distribution system upgrades and repairs. Capital Maintenance project requests for state funding in order of priority were presented.

Barry Wilmore moved to send the FY2027-28 Capital Budget requests to the Board for approval and to place them on the Board's regular agenda. Rhedona Rose seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 5 – Tuition and Mandatory Fees

Dr. Claire Stinson presented the proposed tuition and mandatory fee increases for the upcoming academic year. The proposal includes a combined increase of 5.62%, consisting of a 4.3% tuition increase for undergraduate and graduate students, a \$100 increase to the transportation and parking fee, and a \$10 increase to the SOLO fee requested by the Student Government Association (SGA).

Rhedona Rose moved to send the Tuition and Mandatory Fees to the Board for approval and to place them on the Board's regular agenda. Barry Wilmore seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 6 – Emeritus President Contract

Dr. Claire Stinson presented the FY27 President Emeritus Contract for Dr. Robert Bell. A report from Dr. Bell and what he accomplished the past year along with a copy of his agreement for the upcoming fiscal year was provided in Diligent.

Barry Wilmore moved to send the 2026-27 President Emeritus Contract for Dr. Bell to the Board for approval and to place it on the Board's consent agenda. Rhedona Rose seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 7 – TTU Policy 511.1 (Fee Charges, Refunds and Fee Adjustments)

Dr. Claire Stinson proposed revisions to TTU Policy 511.1 (Fee Charges, Refunds and Fee Adjustments) to be able to implement the latest updates with recent state legislation governing the university's use of out-of-state undergraduate tuition and fee revenues.

Barry Wilmore moved to send TTU Policy 511.1 (Fee Charges, Refunds and Fee Adjustments) revisions to the Board for approval and to place it on the Board's consent agenda. Rhedona Rose seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 8 – TTU Policy 570 (Methods and Processes of Procurement, Contracts, and Agreements)

Dr. Claire Stinson proposed updates to TTU Policy 570 to fully incorporate Policy 571 into Policy 570 to streamline procurement and contract guidance into a single policy. The lease approval thresholds and capital project thresholds have been revised.

Rhedona Rose moved to send TTU Policy 570 (Methods and Processes of Procurement, Contracts, and Agreements) revisions to the Board for approval and to place it on the Board's consent agenda. Barry Wilmore seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 9 – TTU Policy 650 (Disciplinary Action)

Dr. Claire Stinson proposed revisions to the existing policy to align with recent state legislation requiring all higher education institutions to create new tenure and disciplinary policies in accordance with the law.

Barry Wilmore moved to send TTU Policy 650 (Disciplinary Actions) revisions to the Board for approval and to place it on the Board's consent agenda. Rhedona Rose seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 10 – Faculty Promotions

Dr. John Liu, Interim Provost, advised that thirty faculty members were awarded promotion by the President. Details of promotions were provided in Diligent.

This was an information only item. No action was required.

AGENDA ITEM 11 – Tenure Recommendations

Dr. John Liu advised the President's recommendation for tenure included ten faculty members. Details of the candidates were provided in Diligent.

Rhedona Rose moved to send the tenure recommendations to the Board for approval and to place them on the Board's consent agenda. Barry Wilmore seconded the motion. Lee Wray took a roll call vote. The motion carried unanimously.

AGENDA ITEM 12 – Adjournment of Open Session & Call to Order on Non-Public Executive Session

There being no further business, the meeting adjourned at 11:32 a.m. After a short break, the Non-Public Executive Session began at 11:42 a.m. Trustees and Administration were present at the meeting.

AGENDA ITEM 12 – Adjournment

There being no further business, the Non-Public Executive Session adjourned at 12:38 p.m.

Approved,

Lee Wray, Secretary



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Financial Update

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Review

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Action

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No action required

PRESENTER: Dr. Claire Stinson, Sr. Vice President for Planning & Finance

PURPOSE & KEY POINTS: Update on University finances including comparison of end-of-year budget to actual end-of-year expenditures, and tuition and fee revenue projections based on fall semester enrollments.



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Out-of-State Tuition

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Review

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Action

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No action required

PRESENTER: Dr. Claire Stinson, Sr. Vice President for Planning & Finance

PURPOSE & KEY POINTS:

Proposal to expand in-state tuition eligibility for select students from Kentucky and Alabama in support of enrollment growth and recruitment efforts. The proposal would provide in-state tuition rates to all transfer students from Somerset Community College in Kentucky and to residents of six Alabama counties in the Huntsville region.



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Organizational Chart Change

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Review



Action

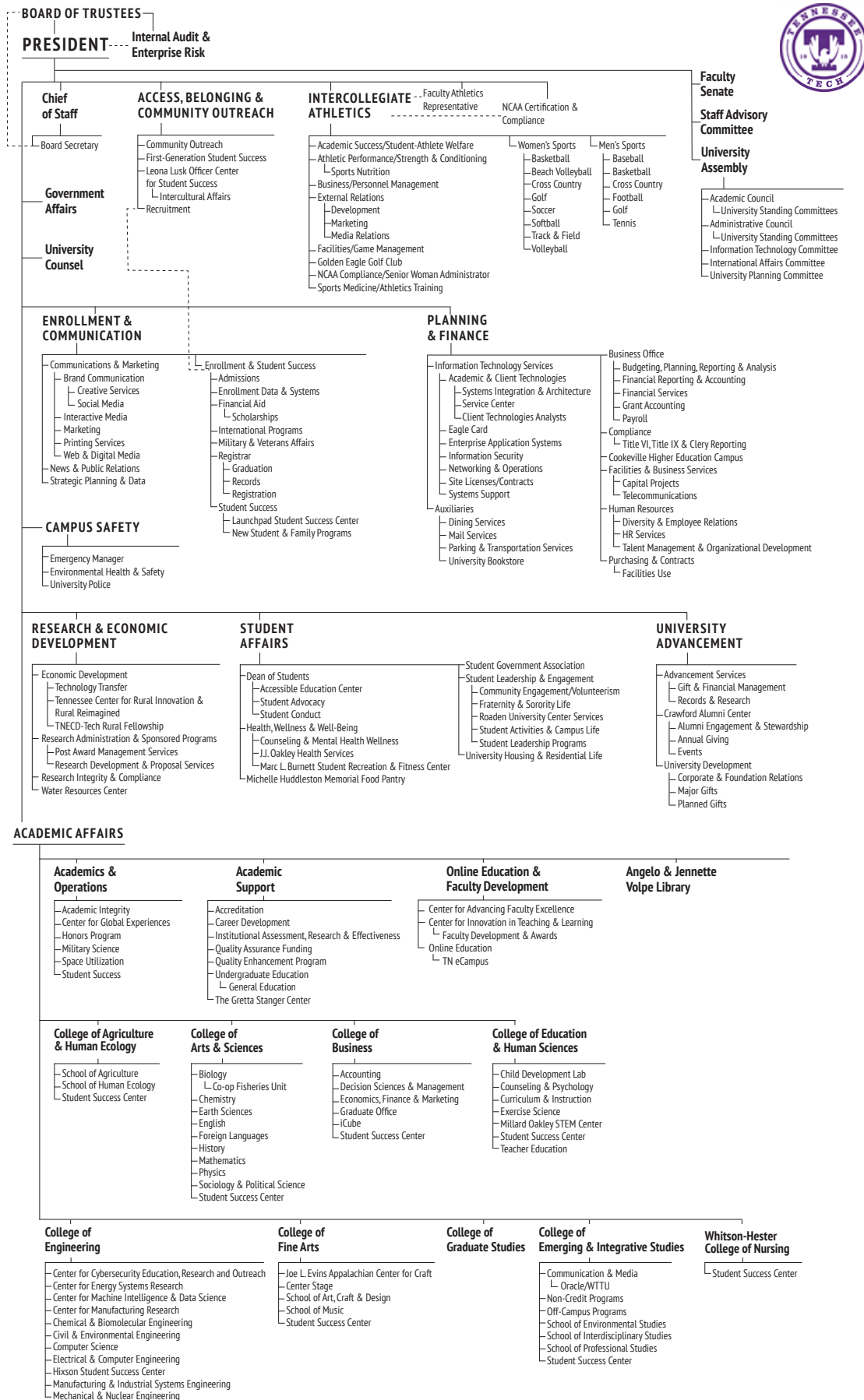


No action required

PRESENTERS: Dr. Claire Stinson, Sr. Vice President for Planning & Finance

PURPOSE & KEY POINTS: Recommend Approval

Overview of the crosswalk of organizational changes with a proposed implementation date of October 1, 2026.





Office of the President

TENNESSEE TECH

August 31, 2026

Submitting on behalf of Tennessee Tech University (TTU) a crosswalk of organizational changes/updates with a proposed implementation date of October 1, 2026, as follows:

Academic Affairs

- Whitson-Hester School of Nursing:
 - Rename to Whitson-Hester College of Nursing
- Remove Registrar

Enrollment & Communication

- Add Registrar

Research & Economic Development

- Move Research Integrity & Compliance from Research Administration & Sponsored Programs to direct report to Research & Economic Development

Intercollegiate Athletics

- Move Development under external relations
- Add Media Relations under external relations
- Add Marketing under external relations
- Remove sports information/broadcasting

A handwritten signature in black ink, appearing to read 'P. Oldham'.

Dr. Philip B. Oldham, President



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Revised Capital Budget

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Review

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No action required

PRESENTER(S): Dr. Claire Stinson, Sr. Vice President for Planning & Finance

PURPOSE & KEY POINTS:

Capital maintenance projects request for FY 2027-28 was submitted to THEC on August 3, 2026. Prior to submission to THEC, some revisions were made to project amounts and prioritization. In addition, one project was removed and three new projects were added.

Capital outlay projects request for FY 2027-28 was submitted to THEC on August 14, 2026. There were no updates prior to submission to THEC.

Capital Maintenance Request: FY2027-28					
Fiscal Year	Priority	Inst.	Project	Project Cost	Project Description
2027-28	1	TTU	Utility Infrastructure Upgrades Phase 2	\$2,520,000	Rerouting of distribution lines, replacement and repair of utilities campus-wide including, but not limited to, underground steam, steam condensate, chilled water, domestic water, irrigation, backflow preventers, sanitary sewer, storm sewer, gas, electric, manholes and valve pits, and all related work. This is the second phase of a multi-phase project.
2027-28	2	TTU	Craft Center Improvements	\$1,310,000	Replace the cedar siding, windows, and other related components of the exterior building envelope, replace all interior and exterior door hardware, and all related work. Buildings included in the scope of work are the Administration Building, the Cool Wing, Glass & Metals, and the Clay Studio.
2027-28	3	TTU	Campus-Wide Building Controls Upgrades PH 3	\$1,825,000	Upgrade pneumatic controls to digital controls on several buildings, including replacement of devices and equipment required to complete digital control of the HVAC systems. Project includes all related work.
2027-28	4	TTU	Bryan Fine Arts Building Exterior Repairs	\$1,770,000	Clean, tuckpoint, caulk, repair, and waterproof brick walls, stone coping, brick patios, window sills, stone caps, retaining walls, concrete expansion joints, seating areas, and all related work. Remove and replace brick and stone as required.
2027-28	5	TTU	Electrical Transclosure Replacement	\$1,750,000	Replace electrical transclosures with pad mounted transformers at Prescott, Clement and Brown Halls, and at East Stadium.
2027-28	6	TTU	Boiler Replacement	\$6,780,000	Replace boiler at the steam plant and build an addition to the building to accommodate the new boiler.
2027-28	7	TTU	Memorial Gym Pool Dehumidification	\$1,050,000	Install a dehumidification system in the pool area, and all related work.
2027-28	8	TTU	Military Science Building MPE Systems Replacement	\$1,025,000	Replace MPE systems in the building, and all related work.
			Total Project Cost	\$18,030,000	



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Disclosed Project

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Review



Action



No action required

PRESENTERS: Claire Stinson, Sr. Vice President Planning & Finance

PURPOSE & KEY POINTS: Review and approval of disclosed project for Farm Office Building at Shipley Farm. This is a gift funded project.

Capital Disclosure: FY2026-27														
	Governing Board	Institution	Project Name	Project Description**	New Sq. Ft.	Funding Source	Project Cost	TSSBA	Gifts	Grants	Auxiliary	Gift-in-Place	Plant Funds	Other
1	TTU	TTU	Farm Office Building	Construct an office building at Shipley Farm with offices, meeting room, break room, restrooms and storage, and all related work.	1,800	Plant Funds, Gifts	\$ 500,000		\$ 500,000					



Agenda Item Summary

Date: September 24, 2026

Agenda Item: Employee Performance Evaluations and Performance-Based Compensation Analysis

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Action

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No action required

PRESENTER: Mr. Kevin Vedder, Associate Vice President of Human Resources

PURPOSE & KEY POINTS: Overview of FY2026 Employee Performance Outcomes and Performance-Based Compensation.



Agenda Item Summary

Date: September 24, 2026

Division: Planning and Finance

Agenda Item: Tenure Upon Appointment and Recommendations

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Review

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Action

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No action required

PRESENTER: Dr. Mickey Latour, Provost

PURPOSE & KEY POINTS: Recommendations and supporting documents for granting tenure and tenure upon hire to eligible faculty members.

The tenure upon hire recommendation is presented as follows: Dr. Philip Appiah-Kubi, Dr. Katherine Chaffin, Dr. Mickey Latour, Dr. Nezih Pala, and Dr. Christy West. Dr. Appiah-Kubi was hired as Chair/Associate Professor for the Department of Manufacturing & Industrial Systems Engineering. Dr. Katherine Chaffin was hired as Chair/Professor for the Department of Sociology and Political Science. Dr. Mickey Latour was hired as Provost/Vice President for Academic Affairs/Professor for School of Agriculture, College of Agriculture, and Human Ecology. Dr. Nezih Pala was hired as Chair/Professor for the Department of Electrical and Computer Engineering. Dr. Christy West was hired as the Associate Dean for Academic Affairs for the College of Engineering. Tenure is being recommended for Charles Van Neste as Associate Professor for Electrical and Computer Engineering. All supporting documents are included.

Recommendation for tenure for each of these individuals is supported by their respective department faculty, college dean, and the provost.

Philip Appiah–Kubi, Ph.D.

Objective: Experienced academic leader with over a decade in higher education, seeking a student-centered role in higher education. **ABET Program Evaluator (PEV)** with demonstrated success in accreditation, program assessment, and continuous improvement. Dedicated to advancing student success through strategic advising, impactful experience, and transdisciplinary industry partnerships that improve retention and career readiness.

1. EDUCATION

- **Ph.D.** in Industrial and Systems Engineering, Ohio University, Athens, 2015
- **M.S.** in Aeronautics and Aerospace Science, University of Tennessee Space Institute, Tullahoma, 2011
- **Graduate Certificate** in Engineering Management, University of Tennessee Space Institute, Tullahoma, 2011
- **B.S.** in Geomatics Engineering, Kwame Nkrumah University of Science and Technology, Kumasi, 2005

2. SELECTED LEADERSHIP EXPERIENCE

- Director of Graduate Programs (August 2021 – present)
- Chair of the Faculty Development Committee (January 2023 – present)
- Secretary of the University Promotion and Tenure Committee (August 2023 - present)
- Vice President of the Academic Senate (November 2022 – May 2023)
- Inaugural Director of the Multi-disciplinary Stitt Scholars Entrepreneurial Program (August 2021 – May 2023)

3. PROFESSIONAL EXPERIENCE

Academic Experience

- **Associate Professor and Director of Graduate Programs**, University of Dayton, August 2021 to present,
 - Leading graduate curricula improvement and assessment activities
 - Developing and implementing graduate recruitment activities
 - Reviewing graduate applications
 - Recruiting adjunct faculty members and managing program budget
 - Advising and mentoring graduate students
 - Preparing semester teaching schedules and teaching graduate courses
 - Serving as a liaison for the department
 - Engaging in scholarly activities
 - Leading and participating in college and university-level service activities
- **Adjunct Faculty (Courtesy Appointment)**, Bowling Green State University, August 2025 to present
 - Serving as an external dissertation committee member
 - Mentoring an educational administration graduate student
- **Associate Professor and Director of the Stitt Scholars Program**, University of Dayton. Joint Appointment, School of Business Administration and School of Engineering, August 2021 to May 2023
 - Developing transdisciplinary extracurricular activities for multidisciplinary students
 - Developing transdisciplinary and entrepreneurial curriculum for transdisciplinary teams
 - Designing and implementing assessment tools
 - Collaborating with the Advancement office to engage with alumni and donors
 - Collaborating with multiple deans to disseminate program impact

- Collaborate with industrial partners to create effective experiential learning opportunities for undergraduate students
- Recruiting multidisciplinary students into the Stitt Scholars program
- Leading graduate curricula improvement and assessment activities
- Developing and implementing graduate recruitment activities
- Reviewing graduate applications
- Recruiting adjunct faculty members and managing program budget
- Advising and mentoring graduate students
- Preparing semester teaching schedules and teaching graduate courses
- Serving as a liaison for the department
- Engaging in scholarly activities
- Leading and participating in college and university-level service activities
- **Assistant Professor and Coordinator of Undergraduate Programs.** University of Dayton, August 2019 to July 2021
 - Leading ABET accreditation for three undergraduate programs
 - Leading undergraduate recruitment events
 - Leading curricula and continuous improvement activities
 - Teaching graduate and undergraduate courses as assigned
 - Collaborating with the Department chair to prepare semester teaching schedules
 - Advising and mentoring undergraduate students
 - Engaging in scholarly activities
 - Serving as a liaison for the department
 - Participating in college and university-level service activities
- **Assistant Professor.** University of Dayton, August 2015 to July 2019
 - Teaching graduate and undergraduate courses as assigned
 - Advising and mentoring undergraduate students
 - Engaging in scholarly activities
 - Participating in college and university-level service activities
- **Instructor and Graduate Research Assistant,** Ohio University, January 2012 to May 2015
 - Teaching undergraduate classes
 - Assisting faculty advisor with ABET documentation
 - Assisting faculty advisor with undergraduate courses
- **Graduate Research Assistant,** August 2010 to December 2011. University of Tennessee Space Institute
 - Conducting aviation-related scholarly activities
 - Assisting with administrative tasks as assigned

Industrial Experience

- **Data Analyst – Ohio Bureau of Workers' Compensation,** March 2015 to June 2015
 - Analyzed workers' compensation data to identify potential fraudulent claims
 - Implemented process improvement tools to streamline data management processes
- **Assistant Systems Engineer - ABP Consults Ltd,** July 2008 to July 2010
 - Managed operating budget
 - Surveyed, designed, and supervised construction systems and reduced defects and rework by 2%.
- **Assistant Engineer - Tahal/Alpha Consults,** June 2006 to June 2008
 - Designed and supervised construction of water distribution systems
 - Managed operating budget

4. HONORS

- SUNY COIL Ambassador, 2025

- Invited speaker, 2025 EFMD Digital Strategies in Business Education,
- Nominated for the Best Teacher award (2021) at the University of Dayton
- Invited speaker, Global Voices Symposium, March 3, 2020
- Travel grant – American Society for Engineering Education, 2016.
- Alpha Pi Mu - Selected for an outstanding contribution to education in the field of Industrial and Systems Engineering, 2015.
- American Institute of Constructors Award, 2014

5. RESEARCH

- 37 refereed articles
- \$530,417 in funding (\$485,338 in external and \$45,079 in internal funding)
- \$360,000 software grant

Peer-Reviewed Journal Publications

- Elizabeth A. Cudney, Robbie Beane, Sandra Furterer, Cintia Buffon, Lakshmy Mohandas, Corrine Mowrey, Ahmad Elshennawy & **Appiah-Kubi, P** (2025): Exploring student perceptions of teaching effectiveness factors in higher education, *Total Quality Management & Business Excellence*, DOI: 10.1080/14783363.2025.2486007
- Zouhri, K. Mohamed, M. Erol, ALiu, B. **Appiah-Kubi, P**. Innovative Bistable Composites for Aerospace and High-Stress Applications: Integrating Soft and Hard Materials in Experimental, Modeling, and Simulation Studies. *Materials* 2024, 17, 4280. <https://doi.org/10.3390/ma17174280>
- D., Olufowobi, O., Hovey P.W., **Appiah-Kubi, P**. (2022). Estimating the safety effects of raising speed limits on rural freeways in Ohio. *Advances in Transportation Studies an international Journal* 2022 Special Issue, Vol. 3.
- Samandi, F., Eustace, D., Zephaniah, S. O., **Appiah-Kubi, P**. (2022). Assessing different freeway interchange design impacts on traffic emissions and fuel consumption through microsimulation. *Advances in Transportation Studies: An International Journal* 2022 Special Issue, Vol. 3
- Zouhri, K., Spencer, M., Nulph, K., **Appiah-Kubi, P**, Fernando, K.A. Shiral, (2022). Experimental and theoretical study of TiO2 porosity effect on the exergy efficiency of dye-sensitized solar cells. *Solar Energy*, Volume 241, 2022, Pages 343-360,
- **Appiah-Kubi, P**, Zouhri, K., Basil, E., and McCabe, M., (2022). Analysis of Engineering Technology Students' Digital Footprints in Synchronous and Asynchronous Blended Courses. *International Journal of Engineering Pedagogy (iJEP)*. <https://doi.org/10.3991/ijep.v12i1.24571>
- **Appiah-Kubi, P** and Annan, E. (2020). A Review of a Collaborative Online International Learning. *International Journal of Engineering Pedagogy (iJEP)*. 10. 109. 10.3991/ijep.v10i1.11678
- Gnacek, M., Doran, E., Bommer, S., and **Appiah-Kubi, P**. (2020). "The Effectiveness of Smart Compose: An Artificial Intelligent System" (2020). *Journal of Management and Engineering Integration*. Vol. 13, No. 1
- **Appiah-Kubi, P** and Briony C. (2019). Effects of Service Projects on the Perceived Skills of Engineering Technology Students. *International Journal for Service Learning in Engineering; University Park* Vol. 14, Issa. 1, (Spring 2019): 21-31. DOI:10.24908/ijse. v14i1.12660
- **Appiah-Kubi, P**, Johnson, M. and Trappe, E. (2019). Service Learning in Engineering Technology: Do Students Have Preferences on Project Types? *Journal of Engineering Technology; Washington* Vol. 36, Iss. 1, (Spring 2019): 32-41
- LaDuca, B., Ausdenmoore, A., Hallinan, P. K., Crecelius, A., Katz-Buonconintro, J., Bennett, J., Arnold, J., Bowman, C., Sweet, C., Hayford, M., Yorke, J., Blust, R., **Appiah-Kubi, P**. (2019). A transdisciplinary collaboration and innovation education model and experience. *Research in Higher Education Journal*. Vol. 37
- **Appiah-Kubi, P**. Chapter 2: A Native's Flashback into the University of Dayton Global Education Seminar (2019). *Myth and Reality: Reflections on Our Travels through West Africa*. 6. https://ecommons.udayton.edu/cip_ges_2019/6.

- **Appiah-Kubi, P** (2018). Multivariate Analysis of Students' Perception on Teaching with Client-Based and Non-Client-Based Team Projects. *International Journal of Engineering Pedagogy (iJEP)*. 8.93.10.3991/ijep.v8i3.8498.
- Süer, A. G., Sarkar, A., Arinsoy, A., **Appiah Kubi, P.**, Plis, K., Altun, M. (2012). Evaluation of Feedback among Multiple Scheduler Profiles in Fuzzy Genetic Scheduling, *Procedia Computer Science*, Volume 12, Pages 129-134, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2012.09.042>.

Peer-Reviewed Conference Publications

- **Appiah-Kubi, P.**, Zouhri, K., Lee, Y., Students' Perception of Artificial Intelligence Applications in Workload Distribution, Performance Monitoring, And Improving Collaboration in Engineering Teams. *Proceedings of the 2025 ASEE Annual Conference*. Montreal, Quebec, June 22 – 2, 2025, USA.
- Mowrey, C., Schneider, S., Vasquez, E., Witenstein, M., and **Appiah-Kubi, P.**, Impacting Global Mindset Using International Case Studies. *Proceedings of the 2025 ASEE Annual Conference*. Montreal, Quebec, June 22 – 2, 2025, USA.
- Lee, Y., **Appiah-Kubi, P.**, Zouhri, K., Evaluating the Impact of Foundational Engineering Management Courses on Graduate Student Success: A Qualitative and Quantitative Study. *Proceedings of the 2025 ASEE Annual Conference*. Montreal, Quebec, June 22 – 2, 2025, USA.
- **Appiah-Kubi, P.**, Zouhri, K., Integrating and Thriving in the First Semester as an International Graduate Student in the United States. *Proceedings of the 2024 ASEE Annual Conference*. Portland, Oregon, June 23 – 26, 2024, USA.
- Zouhri, K., Obermeyer, J., **Appiah-Kubi, P.**, Mowrey, C., Evaluating the Impact of 8 AM Class on Student and Faculty Performance and Perspectives in Engineering Technology Department. *Proceedings of the 2024 ASEE Annual Conference*. Oregon, Portland, June 23 – 26, 2023, USA.
- **Appiah-Kubi, P.**, Creating Value for Entrepreneurs through Transdisciplinary Experiential Program. *Proceedings of the 2023 ASEE Annual Conference*. Baltimore, Maryland, June 25 – 28, 2023, USA.
- Mamimpin, B., **Appiah-Kubi, P.**, and Furterer, S. Marketing Model and Strategy for Local Food Brands in an Area of Food Insecurity. *Proceedings of the 2022 ASEM Annual Conference*. Tampa, Florida, Oct 5 – 8, 2022, USA.
- Mamimpin, B., **Appiah-Kubi, P.** The Influence of Transformational and Democratic Leadership on Motivation to Achieve Organization Goals.” *Proceedings of the 2022 ASEM Annual Conference*. Tampa, Florida, Oct 5 – 8, 2022, USA.
- **Appiah-Kubi, P.**, McCabe, M., (2022). Experiential Learning as a Tool for Deep Collaboration Between Business and Engineering Majors. *Proceedings of the 2022 ASEE Annual Conference*. Minneapolis, Minnesota, June 26 – 29, 2022, USA.
- Untener, J., **Appiah-Kubi**. Building a Strong Foundation for Senior Design Courses. *Conference for Industry and Education Collaboration*. American Society for Engineering Education (ASEE). Feb. 9 – 11, 2022. Tempe, Arizona, USA.
- Olufowobi, O., Eustace, D., Hovey, P.W., and **Appiah-Kubi, P.** “Evaluating the safety impact of raising speed limits on rural freeways.” Presented at the 18th International Road Federation, Dubai, United Arab Emirates, November 7-10, 2021
- **Appiah-Kubi, P.** and Nichwitch, P. (2020). Students' Perception of Collaborative Online International Learning. *Proceedings of the 2020 ASEE Annual Conference*. Montreal, June 21 – 24, 2020, Canada
- Ouedraogo, N., Eustace, D., Qumsiyeh, M., and **Appiah-Kubi, P.** (2020). Analysis of Safety Impact of Raising Speed Limit on Rural Freeways in Ohio. *Proceedings of the International Conference on Transportation and Development*. Seattle, Washington, May 26 – 29.
- Almobayedh, H., Eustace, D., **Appiah-Kubi, P.** (2019). Simulation of the Impact of Connected and Automated Vehicles at a Signalized Intersection. Presented at the Road Safety & Simulation (RSS) International Conference, Iowa City, 2019, Iowa. National Advanced Driving Simulator.
- **Appiah-Kubi, P.** (2016). Evaluation of Teaching Effectiveness through Cheat Sheet Data Mining. *Proceedings of the 2016 ASEE Annual Conference*. June 18-19, 2016. New Orleans, LA

- **Appiah-Kubi, P.** (2016). Enhancing Students Learning and Assessment through Positive Reinforcement. Proceedings of the 2016 ASEE North Central Section Conference. 2016 March 18-19. Central Michigan University.
- Girish, U., Atuahene, I., Rapider, S., and **Appiah-Kubi, P.** (2016). Improving the Hospital Discharge Process Using Lean Approach. In: Proceedings of the 2016 Industrial and Systems Engineering Research Conference. H. Yang, Z. Kong, and MD Sarder, editors. May 21 – 24; Disneyland Resort Hotel, Anaheim, CA.
- Isaac A., Rapider Sawhney, **Appiah-Kubi, P.**, Acosta-Amado, R., (2014). Low Cost Standalone Display System for Obtaining Real-Time Specific Excess Power Contour Plots In-Flight. The National Society of Black Engineers (NSBE) Aerospace Systems Conference. January 22 – 25; Sheraton Gateway Hotel, Los Angeles, California.
- **Appiah-Kubi, P.** Namkyu, P., Atuahene, I. (2014). The Mahalanobis distance approach to minimization of kidney discard rate. In: Proceedings of the 2014 Industrial and Systems Engineering Conference. May 31 – June 2; Montreal, Canada.
- Williams, V. S., **Appiah-Kubi, P.**, Atuahene, I. Namkyu, P. (2014). Systems analysis and remanufacturing: Testing of automotive electronics. In: Proceedings of the 2014 Technology Innovation and Industrial Management (TIIM) Conference. Seoul, South Korea.
- **Appiah-Kubi, P.**, Martos, B., Atuahene, I., Williams, V. S. (2013). U.S. Inflight Icing Accidents and Incidents, 2006 to 2010. In: Krishnamurthy A, and Chan W. K. V, editors. Proceedings of the 2013 Industrial and Systems Engineering Research Conference (Applied Solutions Session). May 18 – 22; San Juan, Puerto Rico.
- Williams, V. S., Muratore, F. J., **Appiah-Kubi, P.** Atuahene, I. 2013. Automating Real – Time Fault Detection for UTSI Airborne Science Applications. In: Krishnamurthy A, and Chan W. K. V, editors. Proceedings of the 2013 Industrial and Systems Engineering Research Conference. 2013 May 18 – 22; San Juan, Puerto Rico. pp. 4096-4101.
- Atuahene, I., Acosta-Amado, Sawhney, R., **Appiah-Kubi, P.**, Analysis and Forecasting of International Flights Arriving in the United States. In: Krishnamurthy A, and Chan W. K. V, editors. Proceedings of the 2013 Industrial and Systems Engineering Research Conference. 2013 May 18 – 22; Caribe Hilton, San Juan, Puerto Rico. pp. 3570-3578.

Abstract Presentations

- **Appiah-Kubi, P.**, (2023). Enhancing Warehouse Operations with Midpoint Coalescing Angled Aisle. 2023 Decision Science Annual Conference, Atlanta.
- **Appiah-Kubi, P.**, (2023). Transdisciplinary Experiential Learning as a Tool for Entrepreneurial Value Creation. Industrial and Systems Engineering Research Conference. May. 19 – 23, 202. New Orleans, LA.
- **Appiah-Kubi, P.**, (2022) Deep Collaboration Between Business and Engineering Majors through Experiential Learning. Industrial and Systems Engineering Research Conference. May. 21 – 24, 2022. Seattle, WA.
- **Appiah-Kubi, P.** (2022). Students' Perception of the Optimum Number of Project-Based Courses. Industry, Engineering & Management Systems Conference. March 15-18. Clearwater Beach, FL.
- Silverberg, G., **Appiah-Kubi, P.**, Doepker, P., and Lewis V., (2022). "Testing the Absorbency of a Postpartum Bra." Proceedings of the 2022 ASEE Annual Conference. Minneapolis, Minnesota, June 26 – 29, 2022.
- **Appiah-Kubi, P.** (2020). "Enhancing Global Consciousness on College Campuses and Beyond: Editor: Amin, Julius A., Proceedings of the 2020 Global Voices Symposium" (2020). *Proceedings: 2020 Global Voices on the University of Dayton Campus*. 12. https://ecommons.udayton.edu/global_voices_3/12
- **Appiah-Kubi, P.** (2020). A Review of a Collaborative Online International Learning. Industrial and Systems Engineering Research Conference. Oct. 31 – Nov. 3, 2020. New Orleans, LA.
- William V. S., **Appiah-Kubi, P.** (2020). Analysis of Angle of Attack Accidents in General Aviation, 2013-2018. Industrial and Systems Engineering Research Conference. Oct. 31 – Nov 3, 2020. New Orleans, LA.

- **Appiah-Kubi, P.** (2019). Impact of Service Projects on Engineering Technology Students Perceived Skills. Proceedings of the 2019 Industrial and Systems Engineering Research Conference. May 18 – 21, 2019. Orlando, Florida.
- Strobach, E., Aponte, M. and **Appiah-Kubi, P.** (2016). U.S. Aviation Accidents and Incidents, 2013. Proceedings of the 2016 Industrial and Systems Engineering Research Conference. May 21 – 24, 2016. Anaheim, CA.
- Strobach, E., Aponte, M. and **Appiah-Kubi, P.** (2016). U.S. Aviation Accidents and Incidents, 2013. University of Dayton Stander Symposium, OH.
- Strobach, E., Aponte, M. and **Appiah-Kubi, P.** (2016). Aviation Accidents and Incidents, 2013. Southwestern Ohio Council for Higher Education (SOCHE) research fair, Sinclair Center, Dayton, OH.

6. SERVICE ACTIVITIES

Professional Service Activities

- ABET Program Evaluator, 2023 – present
- Board Member, Society for Engineering and Management Systems
- NSF Reviewer, 2021 - present
- Treasurer, IISE Dayton-Cincinnati professional chapter, 2018 – present
- Session Chair, IEMS conference, 2020 and 2021
- Reviewer for DoD's SMART Program, 2015, 2016, and 2017
- Session Chair, ASEE NCS conference, 2016

Department Service Activities

- Chair of the Faculty Development Committee, 2023 – present
- Member of the Undergraduate Studies Committee, 2015 – present
- Academic Advisor, 2016 – present

Some College Service Activities

- Dean's Cabinet, Oct., 2023 to present
- Recruitment Committee, 2024 to present
- Grand Challenge Faculty Advisor and Mentor, 2022 to present
- Faculty Ambassador, Jan. 2020 to Dec. 2021

Some University Service Activities

- Secretary, University Promotion and Tenure Committee, 2023 to present
- Mentor, Graduate Academic Affairs Mentoring Program, 2024 to present
- Vice President of the Academic Senate, 2023
- Member of the Executive Committee of the Academic Senate, 2020 to 2023
- Member of the Faculty Board, 2017 to 2019
- Member of the Academic Senate, 2020 to 2023

7. PROFESSIONAL MEMBERSHIPS

- Institute of Industrial and Systems Engineers, 2011 to present
- American Society for Engineering Education, 2015 to present

8. FUNDED PROPOSALS and EXTERNAL FUNDS

- (Co-PI) Collaborative Research: Research Initiation: Assessing Global Engagement Interventions to Advance Global Engineering Competence for Engineering Formation, Award Abstract # 2204956, National Science Foundation (NSF), 2022, \$175,389.00
- (Senior Personnel) Toward an Inclusive Ohio Higher Education Semiconductor Ecosystem and Workforce Through Student-Centered Competency and Experiential, Multi-Entry Curriculum, (Intel), 2022, \$210,000
- (PI) Stitt Scholars Program grant, 2021, \$2,485
- (PI) Stitt Scholars Program Early Donation for Entrepreneurial and Innovative Curriculum, 2021, \$100,000

- (Faculty Liaison) Simio Academic Software Grant to Support Teaching and Research in Simulation, 2021, worth \$360,000
- (PI) KEEN Integrating Curriculum with Entrepreneurial Mindset 2.0, 2021, \$1,142.39
- (PI) KEEN Conference, 2021, \$300
- (PI) Collaborative Online International Learning, 2018, \$7,000
- (PI) Global Education Seminar, 2018, \$8,000
- (PI) “A review and analysis of National Transportation Safety Board (NTSB) data to identify trends and provide recommendations on aviation safety”, University of Dayton Summer Undergraduate Research Experience (SURE), 2016, \$5,000
- (PI) “Integration of Entrepreneurial Learning into Project Management”, University of Dayton KEEN Fellows Program, 2016 - \$18,652
- Winner of ASEE New Attendee Travel Grant, 2016 - \$500
- (PI) “KEEN Integrating Curriculum with Entrepreneurial Mindset (ICE) Workshop”, 5/2016, \$2,500

9. PROPOSALS in PROGRESS

- (PI) “Research Initiation: Assessing the Impact of Multiple Engineering Education Interventions on the Development of Entrepreneurial Mindset and Innovation Competence in Engineering Formation”, 2025, \$191,486 (**submitted**)
 - Agency: National Science Foundation
- (PI) “IGE: Forming a Research Leadership Identity and Research Management Skills in Non-Thesis Engineering Graduate Students”, 2025, \$489,853 (**submitted**)
 - Agency: National Science Foundation
 - Collaborated with colleagues from the Department of Educational Administration
- (Co-PI) “Innovative Scalable Manufacturing of Flexible Dye-Sensitized Solar Cells (DSSCs) for Affordable Renewable Energy Solutions”, 2025, \$449,760 (**submitted**)
 - Agency: National Science Foundation
 - Collaborated with colleagues from Mechanical, Chemical, and Materials Engineering
- (Co-PI) “MRI: Acquisition of Autonomous Driving Simulator”, 2026, \$490,000
 - Agency: National Science Foundation
 - Collaborated with colleagues from Civil Engineering, Psychology, and Vision Lab.

10. SELECTED COURSES TAUGHT

- ENM 500 – Probability and Statistics for Engineers
- ENM 525 / IET 415 – Global Supply Chain Management
- ENM 539 / IET 323 Project Management
- IET 322 – Data Analytics
- IET 317 – Engineering Economics and Financial Analysis
- IET 316 – Operations Research and Quantitative Analysis
- UDI 200 / UDI 300 / UDI 320 Elements of Innovation and Engineering Entrepreneurship

KATE M. CHAFFIN, DSW, MSW

ORCID: 0000-0002-6113-5721

Curriculum Vitae

Education

- | | |
|-----------|--|
| 2019-2022 | Doctor of Social Work, University of St. Thomas, St. Paul, Minnesota. |
| 2002-2004 | Masters of Science in Social Work University of Tennessee College of Social Work, Knoxville, Tennessee |
| 1999-2002 | Bachelors of Science cum laude, Sociology, Tennessee Technological University, Cookeville, Tennessee |

Current Funded Research

PI of an educational development grant, funded by the Fred Roddy Foundation and focused on embedding virtual reality technology into social work curricula to enhance clinical skill development, increase student engagement, and support retention. This grant includes a research component to test the virtual reality intervention via a quasi-experimental design. This initiative positions The University of Tennessee on the forefront of innovative and immersive learning in social work education.

Leadership Experience

- | | |
|--------------|---|
| 2022-current | Assistant Dean of Faculty Development and Clinical Professor. University of Tennessee, Knoxville: College of Social Work |
| 2011-2022 | Director of Online MSSW Program and Clinical Professor. University of Tennessee, Knoxville: College of Social Work |
| 2014-2019 | Director of Nashville MSSW Program and Associate Clinical Professor. University of Tennessee, Knoxville: College of Social Work |

Current Responsibilities

- Lead College of Social Work faculty development initiatives aligned with college and university strategic goals.
- Oversee teaching fellowships and peer learning communities that promote pedagogical excellence.
- Plan and facilitate research focused workshops, writing retreats, and training series on topics such as promotion, research productivity, IRB, grant management, and leadership for faculty at all career stages and tracks.
- Provide individualized coaching and support to faculty at all career stages and tracks.

- Coordinate national search and screen processes for non-tenure and tenure track positions including tenure upon initial appointments.
- Coordinate national, college and university-wide awards and recognition programs to celebrate teaching, research, and service and elevate the college in national rankings.
- Monitor faculty satisfaction and advocate for retention strategies that has helped foster community and a sense of belonging within the College of Social Work.
- Streamline and clarify faculty evaluation, promotion, and workload policies.
- Maintain and manage the faculty development budget in alignment with strategic goals, ensuring responsible stewardship of college resources.
- Collect, Analyze and Report data for SACSCOC and Council on Social Work Education (CSWE) accreditation processes.
- Developed a formal orientation to the college for all new faculty
- Maintain, update, and provide counsel on all matters related to the Faculty Handbook in conjunction with Faculty Governance.

Key Accomplishments at University of Tennessee

- Developed, researched, and directed one of the first fully online MSSW program in the nation.
- Co-Developed university wide rubrics to measure effectiveness of online courses in conjunction with High-Impact Practices and Regular and Substantive Practices.
- Developed and maintained training and support processes for adjunct faculty at college level.
- Developed formal mentoring process for faculty across all tracks and stages.
- Developed and monitored student success/advising programs for online and on-ground students.
- Developed and deliver a monthly early career faculty support group for College of Social Work faculty to foster retention and tenure and promotion.

Awards and Honors

- 2025 NASW-TN Social Work Educator of the Year
- 2024 Manuscript of the Year. Council on Social Work Education.
- 2024 Disability Accessibility Champion. Student Disability Services. UTK.
- 2023 College Marshal. University of Tennessee College of Social Work.
- 2023 Graduate Professor of the Year. University of Tennessee, Knoxville.
- 2021 Teaching and Learning Innovation: November Faculty Spotlight. Selected for Excellence and Innovation in Teaching.

Advanced Trainings/Certificates

- 2025 The Center for Implementation Science: The Roger and Carol Nooe Implementation Science Training Program (current). Toronto, Ontario, Canada.
- 2024 Nancy A. Humphrey's Campaign School, University of Connecticut
- 2023 LEAPS: Leadership Enhancement and Peer Support. University of Tennessee

- 2023 Academy for Holistic Reimagining of the Recruitment, Mentoring, and Retention of Racially Minoritized Faculty. The Pennsylvania State University
- 2019 Nancy A. Humphrey's Campaign School, University of Connecticut
- 2016 Council on Social Work Education, Program Directors Academy Certificate: CSWE Leadership Institute. Alexandria, VA

Professional Experience

Other Academic Experience

- 2021-2022 Fellow. Engaged Online Course Initiative. Multi-disciplinary. Digital Learning: University of Tennessee, Knoxville.
- 2008-2011 Distance Education Developer and Assistant Clinical Professor. University of Tennessee, Knoxville College of Social Work
- 2007-2013 Adjunct Faculty, Tennessee Technological University: Department of Criminal Justice and Sociology

Courses Taught

University of Tennessee, Knoxville (Nashville, Knoxville, and Online Campuses 2008-present)

SW 675 Teaching Methods in Social Work (PhD/DSW)
 SW519 Social Work Research Methods (MSW)
 SW 503 Introduction to Interpersonal Practice (MSW)
 SW 504 Introduction to Interpersonal Practice Skills Lab (MSW)
 SW 600 Doctoral Dissertation (PhD)
 SW 678 Doctoral Teaching Practicum (PhD)
 SW 539 Leadership in Social Service Organizations (MSW)
 SW 510 Social Welfare Policy Practice and Programs (MSW)
 SW 528 Neurophysiology in Social Work Practice (MSW)
 SW 522 Introduction to Social Work Practice (MSW)
 SW 512 Social, Economic, and Political Environments (MSW)
 SW 572 Evidenced Based Practice with Children and Adolescents (MSW)

Tennessee Technological University (undergraduate courses 2007-2013)

SW 4100 Probation and Parole
 SW 1800 Introduction to Social Work
 SOC 4080 Sociology of Appalachia
 CJ3650 Juvenile Delinquency
 CJ4600 Corrections

Non-Academic Experience

5/12-5/14 Child and Adolescent Therapist: Symmetry Counseling Services LLC

2/08-11/08 Applied Behavior Analysis for children diagnosed with Autism.
8/04- 1/08 Clinical Supervisor: Davidson County Mental Health Court

Grants

Funded

- 2025 V.R. Pilot Program Development for Clinical Social Work Skill Acquisition (supplement) (Role: PI). UTK Technology Fee Advisory Board. Awarded to purchase Virtual Reality headsets and stylus. \$18,354.60
- 2023. V.R. Pilot Program Development for Clinical Social Work Skill Acquisition. (Role: PI). Fred M Roddy Foundation. Virtual Reality development to train social work students' knowledge and skill development. \$145,000
- 2023 "*How Social Identity Shapes Provision and Receipt of Allyship Practices.*" Student Faculty Research Award. Kenyette Garrett, PhD student. (Role: Co-PI). Fall 2023. \$5,000.
- 2023 Virtual Nancy A. Humphrey's Campaign School to train social workers to run for office. Faculty (Role: Co-PI). Social Justice Initiative and Innovation. \$10,000
- 2023 UTK Technology Fee Advisory Board. (Role: Co-PI) Awarded to purchase Virtual reality headsets for Roddy Foundation grant. \$20,400.00
- 2020 Social Justice Initiative and Innovation. (Role: Co-PI) Train 100 social work providers in Tennessee and surrounding states, as well as UTK social work students. To support immigrants facing asylum and deportation hearings. \$10,500.
- 2020 Social Justice Initiative and Innovation. (Role: Co-PI). Trained 100 social workers on how to register voters in their work settings and community. \$5,000
- 2019. Social Justice Initiative and Innovation. (Role: PI) University of Connecticut's Humphrey's Institute Campaign School. Trained 50 social workers to run a campaign, work on a campaign and organize voter drive initiatives. \$17,000
- 2018. Social Justice Initiative and Innovation. (Role: Co-PI). Development of Coalition of Black Social Workers for College of Social Work. Mentoring, trainings, and workshops for students and alumni of color. \$20,000.
- 2014. (TIPS): Training Integrated Professionals to Serve Ages 0-25. Role: Co-PI and Project Director). Award announced in September 2014. Health Resources and Services Administration, \$800,000

Submitted but Not Funded

2020. A Longitudinal, Inter-institutional, Interprofessional Education Program and Interprofessional Competencies to Enhance Patient Safety. (Role; Co-PI) National Council of State Board of Nursing, \$8,500. Principal Investigator: Mavis Schorn Vanderbilt Nursing College.
2013. The Veteran's Initiative for Tennessee. (Role: Co-PI). Not funded. Health Resources and Services Administration, \$500,000

Publications

Peer-Reviewed Articles

- Garrett, K., Ward, C. & **Chaffin, K.** (In Press). Won't You Celebrate with Me? A Conceptual Framework for Mentoring Black Women Pursuing Research Doctorates. *Journal of Social Work Education*.
- Huslage, M., **Chaffin, K.**, Cronley, C., Ravi, K., & Messinger, L. (Accepted). "He offered to buy me a sundress" Prevalence and types of self-reported harassment experienced within the context of social work academic conferences. *Affilia*.
- Ward, C., Garrett, K., Till, A., & **Chaffin, K.** (Under Review). Lifting me up or holding me back? Black women's experiences with support or lack thereof in Social Work PhD Program. *Journal of African American Women and Girls in Education*.
- Ravi, K., Messinger, L., Cronley, C., **Chaffin, K.**, & Huslage, M. (Revise and Resubmit). Harassment and Discrimination at Social Work Conferences in the United States: Help-seeking and Help-Giving Experiences and Perceptions. *Journal of the Society of Social Work and Research*.
- Ricciardelli, L. A., **Chaffin, K. M.**, Herzog, J., & McGarity, S. V. (2025). Inclusive Education at a Crossroads: Assessing Accommodations for Online Students with Disabilities. *Critical Disability Discourses*, 10(1). <https://doi.org/10.25071/1918-6215.39771>
- Chaffin, K.** (2024). Online MSW Education and Critical Feminist Perspectives: An Educational Framework. *Journal of Teaching in Social Work* 43(4), 496-512. <https://doi.org/10.1080/08841233.2023.224821>
- Chaffin, K.**, and Shatila, S. (2023). The Case for Online Education; Success Factors in an Online MSW Program. *Social Work Education*. <https://doi.org/10.1080/02615479.2023.2221992>
- Scoresby, K., Willis, D. Husalage, M., & **Chaffin, K.** (2022) Turn on the CC: Increase inclusion for all of your students. *Journal of Social Work Education*. <https://doi.org/10.1080/10437797.2022.2062510>

- Cummings, S., **Chaffin, K.**, Milam, A. (2019). Comparison of an online and traditional MSW program: A five-year study. *Journal of Social Work Education*, 55(1), 176-187. <https://doi-org.utk.idm.oclc.org/10.1080/10437797.2018.1508391>
- Held, M., Black, D., **Chaffin, K.**, Crane Mallory, K., Milam, A., & Cummings, S. (2019). Training the future workforce: Social workers in integrated health care settings. *Journal of Social Work Education*, 55(1), 50-63. <https://doi-org.utk.idm.oclc.org/10.1080/10437797.2018.1526728>
- Watson, C., **Chaffin, K.**, & Crane-Mallory, K. (2018). Clinical practice and social justice: Bridging the gap with science. *The New Social Worker*. Summer.
- Watson, C., **Chaffin, K.**, & Crane-Mallory, K. (2017). Poverty, toxic stress, ACE's and evidenced based policy change: A collection of resources. *CSWE Policy Clearinghouse*.
- Cummings, S., **Chaffin, K.**, and Cockerham, C. (2015). Comparison of outcomes between an online MSW program and a traditional MSW program. *Journal of Social Work Education*, 51, 109-120. <https://doiorg.utk.idm.oclc.org/10.1080/10437797.2015.977170>
- Cummings, S., Foels, L., & **Chaffin, K.** (2013). Clinical social work practice with groups through distance education: An evaluation of predominately online classes. *Journal of Social Work Education* 32, 68-80. <https://doiorg.utk.idm.oclc.org/10.1080/02615479.2011.648179>
- Shatila, S., MacMaster, S.A., Jones, J. & **Chaffin, K.**, (2005). C.R.A.C.K: Unethical? What about misogynist, racist, and classist? *Journal of African American Studies*, 9(1), 32-42.
- MacMaster, S.A., Holleran, L., & **Chaffin, K.** (2005). Harm reduction: Empirical and theoretical support for non-abstinence-based prevention services for adolescents. *Journal of Evidence-Based Social Work*, 2, (1/2).

In Preparation

- Chaffin, K., Shaw, A., Saxena, M., Stevenson, L (In preparation) Virtual Reality in a Social Works Skills Lab. Results from a pilot study. *Journal of Social Work Education*.
- Chaffin, K. Saxena, M., Shaw, A. (In preparation). Social Work student's experiences utilizing virtual reality in a skills lab. *Journal of Social Work Education*.
- Friesthler, B., Chaffin, K., Garrett, K. (In Preparation). Self-perceived behaviors among parents that microdose marijuana, psilocybin, or tobacco. A phenomenological study utilizing feminist methods. Currently in IRB stage.

Chapter in Edited Books

MacMaster, S.A., Holleran, L., and **Chaffin, K.** (2005). *Empirical and theoretical support for non-abstinence-based prevention services for adolescents*. In C. Hilarski, *Treatment with Adolescents, Adults, and Families*. Haworth Press.

Dissertation

Chaffin, Kate M., "Guardians of the Gate: A Critical Feminist Framework for Online MSW Education" (2022). *Doctor of Social Work Banded Dissertation*. 95.
https://ir.stthomas.edu/ssw_docdiss/95.

Thesis

McClernon-Chaffin, K. (2004). Frame analysis of the living wage campaign and social work implications. Thesis: The University of Tennessee. Committee: Chair Dr. Jenny Jones,

Conference Presentations

Peer-Reviewed

Messinger, L; **Chaffin, K.**; Cronley, C; Huslage, M; & Ravi, K. (2025). Harassment and discrimination at social work conferences: A critical feminist rapid response project. Symposium. SSWR: Seattle.

Chaffin, K.; Messinger, L, Cronley, C., Ravi, K.; Huslage, M. (2025). Stories of Harassment and Discrimination at Social Work Academic Conferences: Thematic Results from a National Sample. Panel Discussion. SSWR: Seattle.

Messinger, L. & **Chaffin, K.** (2024). Harassment and Discrimination at Social Work Academic Conferences: Results from a National Survey. Paper Presentation. CSWE APM: Kansas City.

Garrett, K & **Chaffin, K.** (2024). The Celebration Mentoring Model: Decolonizing Doctoral Mentoring Utilizing Black Feminist Thought. E-Poster. CSWE APM: Kansas City.

Littlefield, M; **Chaffin, K.**; Shatila, S. (2023). Generation-Regeneration: Intersectional Feminist Approaches in Futuring Anti-Oppressive Social Work Education. CSWE APM: Atlanta.

Chaffin, K. (2023). Preparing Doctoral Students for Anti-Racist/Anti-Oppressive Classrooms: Critical Feminist Pedagogy. Poster Presentation. CSWE APM: Atlanta.

Moran, R., **Chaffin, K.**, Shatila, S., Casali, S. (2022). Feminist Peer Mentoring in Doctoral Programs: Supporting the Next Generation of Students. Poster Presentation. CSWE APM: Anaheim, California.

Chaffin, K. (2021). I'm Speaking: Online education giving voice to women. CSWE APM: Orlando.

Chaffin, K., Simmons, C., Yoon, J., Elias-Lambert, N., & Nau, E. (2021). Feminist academic mentoring: An equity focused model that promotes relationships and support. Accepted for CSWE: APM. Denver, Colorado. Presented at CSWE APM: Orlando.

Franks, J., **Chaffin, K.**, Rhodes-Smith, T., Crane-Mallory, K. (2020). Diversity, Equity and inclusion: Empowering social workers as change makers in politics. Accepted for CSWE: APM. Denver, Colorado.

Chaffin, K., Shatila, S. (2021). Mentorship as a Retention Tool for Adjuncts. Oral Presentation. SWDE: San Antonio, Texas.

Chaffin, K., Hannaway, N. (2019). The Role of Advising as a Proactive Approach in Online MSSW Programs. Oral Presentation. SWDE: San Antonio, Texas.

Chaffin, K., Hannaway, N. (2018). The Importance of Human Relationships: Educators Role in Advising. CSWE: APM. Orlando, Florida.

Hannaway, N, **Chaffin, K.,** Davidson, H. (2018). The Role of Advising in Interprofessional Education: A Proactive Approach. CSWE: APM. Orlando, Florida.

Chaffin, K., Cummings, S. (2018). Apples and Apples: Comparison of an Online and Traditional MSW Program: A Five-Year Study. SWDE, San Antonio, Texas. Poster.

Cummings, S., **Chaffin, K.** (2017). Comparison of Online and Traditional MSW Programs' Educational Outcomes: A Five-Year Study. CSWE, APM: Dallas, Texas. Paper Presentation

Borja, N., **Chaffin, K.,** Schriver, R., McDonough, S. (2017). Student Attitudes Following an Interprofessional Activity on Cultural Competence for Pharmacy and Social Work Students. American Associate of College of Pharmacy (AACP) Annual Meeting. Nashville, Tn. Poster Presentation.

Chaffin, K. (2017). New School Approaches to Social Work Pedagogy: Preparing PhD Students. Social Work Distance Education Conference. San Antonio. Paper Presentation.

Watson, C, **Chaffin, K.**, and Crane-Mallory, K. (2016). Teaching Poverty as an Adverse Childhood Experience: Engaging Students in Policy Change. CSWE, APM: Atlanta, Georgia. Workshop.

- Schrivver, R., **Chaffin, K.** (2016). Macro Practitioner Development: How to Create an Engaging and Cutting-Edge Online Resource Development Course. Social Work Distance Education Conference. Indianapolis, Indiana. Workshop.
- Chaffin, K.**, Keiser, S. (2016). Creating Standards in Student Recruitment while utilizing Social Work Values and Ethics. Social Work Distance Education Conference. Indianapolis, Indiana. Roundtable.
- Chaffin, K.**, Cummings, S., and Keiser, S. (2015). What is your Message? Recruiting Online MSW Students and Our Professional Values. CSWE, APM: Denver, Colorado. Discussion.
- Schrivver, R., and **Chaffin, K.** (2015). Penny Wise: Creating and Engaging and Cost-Effective Resource Development Class. CSWE, APM: Denver, Colorado. Interactive Workshop.
- Chaffin, K.** (2015). Exploring the outcomes: Comparative analysis of an online and face-to-face MSW program. CSWE: Social Work Distance Education Conference. Indianapolis, Indiana. Paper Presentation.
- Keiser, S., and **Chaffin, K.** (2015). Developing and Interactive and Engaging Online Field Seminar. CSWE: Social Work Distance Education Conference. Indianapolis, Indiana. Workshop.
- Chaffin, K.** and Cummings, S. (2014). Preparing Students for Online Education: The Orientation Process. CSWE, APM: Tampa Florida. Roundtable
- Cooper, L and **Chaffin, K.** (2014). Finding Balance Through the Wobble: Mindfulness Based Interventions with Children and Adolescents. CSWE, APM: Tampa, Florida. Workshop
- Keiser, S. and **Chaffin, K.** (2014). The Spark: Engaging Online Students with a Completely Online Field Seminar. CSWE, APM: Tampa, Florida Workshop.
- Chaffin, K.**, and Cooper, L. (2013). ACTION Orientation: Outcomes from a Private Residential Facility and Social Work Implications. CSWE, APM: Dallas, TX. Poster Presentation 2013.
- Cooper, L, **Chaffin, K.**, and Cummings, S. (2013). Teaching Clinical Skills Online. CSWE, APM: Dallas, TX. Skills Workshop.
- Chaffin, K.**, Cummings, S. (2012). Virtually In touch: Innovative Tools for Effective Online Instruction. CSWE, APM: Washington, D.C. Roundtable.
- Cummings, S., and **Chaffin, K.** (2012). Comparison of Outcomes of a Distance Education and a Traditional MSW Program. CSWE, APM: Washington, D.C. Paper Presentation.

Chaffin, K. (2011). The Yes Men Challenge: Satire as an Innovative Approach for Teachers. CSWE, APM: Atlanta, GA. Poster Presentation.

Cummings, S. and **Chaffin, K.** (2011): Comparative Analysis of Distance Education and Classroom-Based Instruction for Teaching Clinical Skills. CSWE, APM: Atlanta, GA. Paper Presentation.

Chaffin, K., and Foels, L. (2009) Clinical Social Work Practice with Groups Through Distance Education: An Evaluation of Predominately Online Classes. CSWE, APM: San Antonio; Paper Presentation.

Invited

Littlefield, M., Shatila, S., & **Chaffin, K.** (2023). Generation-Regeneration: Intersectional Feminist Approaches in Futuring Anti-Oppressive Social Work Education. Paper Presentation. CSWE APM: Atlanta, Georgia.

Chaffin, K. (2022). Community, Care, and Critical Consciousness: Developing and Online Course from a Feminist Perspective. OLAP Virtual Symposium. October 2022.

Chaffin, K. (2021). Feminist Pedagogy in Online Environments. Brown Bag Luncheon presented to the faculty of The University of Tennessee, Knoxville. Office of Online Learning and Programs: September 2021.

Chaffin, K., Simmons, C., Yoon, J., Elias-Lambert, N., & Nau, E. (2021). Feminist academic mentoring: An equity focused model that promotes relationships and support. APM: Orlando, Florida.

Chaffin, K. (2015). Mindfulness Based Interventions with Children. David Lipscomb University BSW program.

Chaffin, K. (2013). Current issues in Tennessee: Human Trafficking and Dual Diagnosis: Comprehensive Assessment and Treatment Planning with Trafficked Women. Vanderbilt Medical and Psychiatric Hospital.

Chaffin, K. (2011). Ethics and Leadership Styles. Monroe Harding Children's Home Professional Conference.

Chaffin, K. (2010). Ethics and Leadership Skills in the Human Services. Monroe Harding Professional Conference.

Chaffin, K. (2009): TCSW Chattanooga Fall Conference: Poverty Simulation. Chattanooga, TN.

Chaffin, K. (2008): Breaking the Boxes: Integrating Health Care, Clinical Services,

and Environmental Support to Promote Meaningful Lives for Those with Intellectual and Developmental Disabilities: TN NADD Annual Conference/Vanderbilt

Awards and Honors with Students

- 2019 NASW-TN MSSW Day on the Hill Policy Poster Winner: SB0059: Parent-Child Unity. Faculty Mentor (UTK)
- 2019 3MT Semi-Finalist. Recovery High School by [REDACTED]. Faculty Mentor. (UTK)
- 2018 NASW-TN MSSW Day on the Hill Policy Poster Winner: HB1460/SB 1626: Recovery High School. Faculty Mentor (UTK)
- 2017 3MT Finalist. Research and Advocacy of Tennessee Women's Health Policy by [REDACTED] Faculty Mentor. (UTK)
- 2017 NASW-TN MSSW Policy Poster Winner: Has the Jury Reached a Verdict? Abolishing the Death Penalty for the Severally and Persistently Mentally Ill. Faculty Mentor. (UTK)
- 2016 NASW-TN MSSW Policy Poster Winner: Empowered Women Strong Families. Faculty Mentor. (UTK)
- 2015 NASW-TN MSSW Policy Poster Winner: Ban the Box: Ending Discriminatory Practices on Job Applications. Faculty Mentor (UTK)
- 2014 Chancellor's Excellence in Graduate Advising and Mentoring Award Nominee (UTK)
- 2013 Chancellor's Excellence in Graduate Advising and Mentoring Award Nominee (UTK)
- 2012 NASW-TN MSSW Policy Poster Winner: A Solution in Search of a Problem: Tennessee Voter ID Laws. Faculty Mentor (UTK)
- 2010 Tennessee Alliance for Continuing Higher Education (TACHE) credit program award

Service

Service to College

- 2022-2024. Co-Facilitator. Inclusive Pedagogy.
 - Developed Canvas site to house inclusive teaching materials for faculty.
- 2021-present. NTT Promotion Committee.
 - Promotion Committee Chair 2021-2023.

2018-2019 Member. Dean's Search Committee. Successful Search.

2014-present. Accreditation Committee

2014-2022: MSSW Program Committee- ex-officio

2010- present: Curriculum Committee- ex-officio

2008-2014: Admissions Committee

Service to University

2024-present. Senator. Faculty Senate.

2024: Committee: Faculty Affairs

2025: Awards and Mentorship Committee

2023-present. Advisory Board Member. Teaching and Learning Center: Curriculum Support.

2022-present. Member. Executive Committee of Faculty Affairs Deans

2022-2024. Graduate Council. Graduate Student Award Committee.

2022. Engaged Online Course Initiative. Peer Reviewer.

2021. Request for Proposal Committee for Online Student Behavioral Health.
Committee organized by Associate Vice Provost for Online Learning, Josh Steele.

2020. Committee Member. Associate Vice Provost for Online Learning Search
Committee. Successful Search.

2018-2021. Graduate Council Committee. Proxy.

Service to Social Work Profession

Ad hoc Peer Review:

2025 Journal of Social Work Education

2025 Journal of Teaching in Social Work

2025-2028. Co-Chair: Feminist Scholarship Track-Council on Social Work Education

2016- present Peer Review. Council on Social Work Education: Annual Program Meeting

2015-present External Reviewer: Promotion and Tenure
University of Denver; Univ of Alaska, Rutgers, Univ of Indiana, Univ of Hawaii,
Utah State

2018 -2024. Member. Council on the Role of Women in Social Work.
2022-2023: Co-Chair Women's Council with Dr. Erin Nau
2021-2024: Feminist Scholarship Award Committee
2021-2022: Co-Chair-Elect
2020-2024: Membership Committee
2018-2024: Women's Breakfast Committee
2019-2024: Editorial work for Feminist Manuscripts
2020-2021: Connect Session Chair

2015-2017. Peer Review: Child and Adolescent Social Work Journal

2013- 2105. Director-at-Large: NASW- TN
PACE Committee (2013-present)
Ethics Committee (2013-2015)
Social Work Day on the Hill Committee (2013-present)

Service to Community

2025-present. STEM Poster Judge. Pope John Paul II Highschool. Hendersonville, TN.

2022-Present. Alumni Advisory Council. Tennessee Technological University: Department of Sociology.

2012-2017 Team Captain, UTKCSW. Nashville CARES Walk.

2014- present. Steering Committee. Vanderbilt Interprofessional Learning Program.

2014-2023. Rotating Faculty. Vanderbilt Interprofessional Learning Program.

2014- present. Network of Social Work Managers. Founding member of Tennessee Chapter

2014-2018. Board Member. Davidson County Mental Health and Veterans Court Foundation.

References

Matthew Theriot, PhD
Dean and Professor
University of Central Florida
College of Health Professions and Sciences
[REDACTED]

Gretchen Ely, PhD
PhD Program Director and Professor
Stonybrook University
[REDACTED]

Stacia West, PhD
Founding Director Center for Guaranteed
Income Research and Associate Professor
The University of Pennsylvania
The University of Tennessee, Knoxville
Split Appointment
[REDACTED]

Suzanne Shatila, DSW
Director of MSW Program
University of Minnesota
School of Social Work
[REDACTED]

Doug Coatsworth, PhD
Associate Dean for Research
Betsey Bush Endowed Professor
University of Tennessee, Knoxville
College of Social Work
[REDACTED]

Mickey A. Latour

Arkansas State University
College of Agriculture

Education and Faculty Appointments

NIH Fellow, 1997	Washington University School of Medicine, St. Louis, MO. <i>Division of Nutrition and Lipid Disorders (Studied rare lipid disorders in Hypobetalipoproteinemia kindreds)</i>
PhD, 1995	Mississippi State University, <i>Animal Physiology</i>
MS, 1992	Mississippi State University, <i>Animal Physiology</i>
BS, 1990	Southeastern Louisiana State University, <i>Major Animal Science and minor Biology</i>

Faculty Appointments:

At Purdue University, maintained a three-way appointment, research, extension and teaching.

- Assistant Professor, Purdue University, West Lafayette, IN 1997-2002
- Associate Professor and tenured, Purdue University, West Lafayette, IN 2002-2009
- Professor with tenure, Purdue University, West Lafayette, IN 2010-2012
- Professor with tenure, Southern Illinois University, Carbondale, IL 2012-2020
- Professor with tenure, Arkansas State University, Jonesboro, AR 2020-present

Executive Experience:

With more than a decade of senior leadership experience across Purdue University, Southern Illinois University, and Arkansas State University, I have developed and refined a leadership approach rooted in strategy, collaboration, and continuous improvement. Over the past five years in particular, my focus has been on identifying strategic priorities, executing key initiatives, advancing fundraising and development, strengthening outreach, enhancing student success, growing research activity, and developing future leaders through intentional mentorship and professional development. I believe effective leadership is a continual process of growth and learning that applies to every facet of life.

1. **Dean, College of Agriculture (CoA), Arkansas State University (2020–present, R2)**
Lead one of the university's oldest and most established colleges, encompassing programs in animal science, food science, agronomy, agricultural education, geographic information systems, and agricultural business. Oversight includes academic programs, research, outreach, faculty development, budget management, and strategic partnerships across the state and region.
2. **Dean, College of Agricultural Sciences, Southern Illinois University (2012–2017, R1)**
Directed the university's oldest academic college with programs in animal science, foods and nutrition, hospitality, forestry, agronomy, agricultural education, precision agriculture, and agribusiness. Provided leadership during Illinois' historic two-year budget impasse ([two-years with no budget](#)), ensuring continuity of programs, faculty stability, and student success through strategic planning and fiscal management.
3. **Associate Dean, Purdue University (2010–2012, R1)**
Oversaw Purdue Extended Campus and Distance Learning (75% appointment) while maintaining an active lipid metabolism research program (25%). Directed the design, delivery, and quality assurance of online courses, degree programs, and strategic initiatives serving thousands of students across disciplines.

Major Initiatives & Outcomes (Arkansas State University-present)

Development of a New Strategic Plan (2022–2027): Established key priorities identified:

- Expanding experiential learning and research opportunities.
- Promoting entrepreneurial initiatives.
- Growing enrollment and enhancing student success metrics.
- Strengthening alumni communications.
- Advancing community engagement.
- Driving fundraising efforts.
- Increasing access and sense of belonging.

Development of New Executive Advisory Board:

- Established a board (n=17 members) with elected President, Vice President, Treasurer/Secretary. Board members of advocates for the college and strategically assist in implementation of the college strategic plan.

- Increased endowments by nearly 30% and raised millions of dollars to strategic initiatives to support college priorities. The increase in endowment funds does not include estimates to trust commitments.

Judd Hill Farmers' Market Facility:

Led a multimillion-dollar experiential and entrepreneurial complex, the Judd Hill Farmers' Market, and the new Aggie Market. The new complex has significant impact on the local community, the regional economy, and agricultural education. The complex is a hub for local produce, education, and innovation, it has fostered connections between growers, consumers, and institutions, advancing the agricultural sector in meaningful ways.

Facility opened in 2023, with student led products entering the marketplace in Fall 2024.

Privately Funded Broiler Complex in Partnership with PECO Foods:

Led a private partnership with PECO Foods to develop a transformed hands-on experience for students and faculty. The new state-of-the-art complex offers access to advanced equipment and real-world applications, the facility enables students to gain practical experience in poultry production. These experiences prepare graduates to meet industry demands and excel in careers related to agriculture, food science, and supply chain management. Additionally, the facility is designed with flexibility to do advanced applied research.

Meat Science Laboratory Modernization

Significant funding was secured to upgrade the Meat Science Laboratory at A-State. The newly renovated facility has had a positive impact on our students, the university, the regional agricultural community, and the broader meat and food industries. This state-of-the-art facility supports innovative approaches to product development through student-led activities, providing hands-on experience in meat science, processing, and safety, while effectively bridging the gap between classroom theory and industry practice.

- In 2025, our students competed in the Governor's Cup, where teams from nearly 70 universities pitched startup concepts. A group of our students presented a new snack stick project and performed exceptionally well in the competition. We plan to expand this effort in 2026, fostering an even stronger entrepreneurial spirit among our students.
- One of our major initiatives from this facility is the "Snack Stick Project." The original effort began by accepting venison donations, blending them with 25% pork, and distributing the finished snack sticks through a backpack program to help address food insecurity in Arkansas, which currently ranks among the highest in the nation.
- We recently secured a new endowment (details to be released) to expand this work into "Snack Stick 365," a year-round initiative that will incorporate a variety of protein types as well as rice. This new phase will involve close collaboration with commodity groups and continue targeting food insecurity among children in Arkansas.

Workforce Development

Our college is part of a larger \$10.5 million grant designed to enhance workforce development in Northeast Arkansas (NEA). This effort focuses on building strong partnerships with community colleges to create clear and vibrant pathways into local industries. The goal is to enhance training options for high school graduates and current employees seeking to expand their skill sets. Participants can earn stackable credentials that can be applied toward college credit, progressing from certificates to associate degrees and, if desired, continuing toward a bachelor's degree.

We are currently in the early stages of constructing a new facility dedicated to this specialized workforce training.

Judd Hill Scholars:

This endowment provides research opportunities for undergraduate and graduate students across various fields of agriculture. In addition to enhancing student experiences, the endowment is led by a faculty member. It is structured to cover supplies, tuition, and travel expenses for both students and faculty participants. Beyond advancing scientific research, the program emphasizes the development of essential soft skills, including dining etiquette, leadership fundamentals, networking techniques, and engagement with commodity executives for students, faculty leaders, and their faculty mentors.

Riceland Scholars:

This endowment to provide research opportunities for undergraduate and graduate students (active projects are from the College of Agriculture, Neil Griffin College of Business and Beck College of Math and Science) across the entire campus as it relates to rice. In addition to enhancing student experiences, the endowment is led by a faculty member from the College of Agriculture, offering them valuable leadership experience. It is structured to cover supplies, tuition, and travel expenses for both students and faculty participants. Similar to the Judd Hill Scholars, the program emphasizes leadership development for students, faculty leaders, and their faculty mentors.

Agriculture Academy:

The Agriculture Academy endowment is a signature program within the college that targets leadership development. The program is highly competitive and students selected into the program are exposed to wide-range of experiences including and not limited to leadership development, travel opportunities, dining etiquette workshops, internships, and specialized certification programs.

Penn Trading (Commodities and Futures) Program:

An advanced trading program is at the heart of this endowment where students can purchase/sell contracts, specifically commodities and futures. Students in this club come from Science, Math, Agriculture, and Business engage in simulated, then actual financial commitments in trading,

gaining practical skills in market analysis, risk management, and decision-making under real-world conditions utilizing real funds. At the same time, students learn to navigate global agricultural markets, understand price fluctuations, and apply financial tools like futures and options contracts, making them highly competitive job candidates.

Enrollment, Graduation Rates and Online Program Development:

An important part of the college is growing enrollment, student graduation rates, and online programming. Over the past few years, college has excelled in all of these areas.

Outcomes:

- A 40% increase in overall enrollment
- Number 1 across all colleges in graduation rate for 4- and 6-year metrics
- Among the highest in retention rates
- Distance Education Initiative: Approximately 135 new students (105 undergraduates and 30 MBA students).

Across the college, we have grown the number of internships, and certificates. In addition, we have enhanced partnerships, funding opportunities, improved facilities, grown endowments, growing a more diverse student body, and providing opportunities for community engagement for our students.

Engagement, Community, and Alumni Relations

- Bi-weekly, visiting with donor(s), strategic partner(s), and cultivating a relationship.
- Furry 5K Fun Walk (2021–present): Annual campus event coinciding with homecoming to engage alumni and showcase college programs.
- Ag and Autism Partnership (2023–present): A new initiative to raise awareness and foster community.
- Bill and Alice Nix Farm Day (refreshed in 2021–present): Updated campus event to connect the community with food production education.
- Football and Basketball Suites (2021–present): Created donor cultivation opportunities at Centennial Bank Stadium.
- Expanded Alumni Awards Program (2021–present): Introduced Young Alumni, Outstanding Alumnus, and Outstanding Service awards to coincide with AG Day football games.

Collaboration and Leadership Development

- Veterinary Medicine College: Co-led the ongoing development of Arkansas State University's College of Veterinary Medicine, 2020-2024.
- Water Symposium (2022): Co-organized a multi-university symposium focused on water management challenges.
- Dean Leadership Retreats: Led efforts in strategic planning (2021) and inclusive leadership (2022) with Washington University's Olin School of Business.

Major Initiatives & Outcomes (Southern Illinois University)

1. **Addressed Financial Challenges**
 - Managed year-over-year budget cuts while identifying new revenue sources.
 - Operated for nearly 800 days without a state budget (2015–2017), navigating the nation's longest budget stalemate, see https://en.wikipedia.org/wiki/Illinois_Budget_Impasse
2. **Enhanced Student Success**
 - Strengthened student success metrics by implementing professional advising and mentoring programs.
 - Focused on course articulation, degree pathways, and career readiness.
3. **Expanded Distance Learning and Online Programs**
 - Developed online and summer school courses to improve accessibility and generate new revenues.
 - Achieved significant growth in credit hour generation across terms (+319% in Fall; +414% in Spring/J-Term).
4. **Promoted Research and Experiential Learning**
 - Launched *Ideas to Investigation (i2i)* program, providing hands-on research opportunities for undergraduates in collaboration with industry partners. Secured \$325,000 in private funding.
 - Collaborated with the Colleges of Science and Engineering to create the *Elevating Research* initiative, fostering cross-disciplinary partnerships and increased grant submissions.

Major Initiatives & Outcomes (Purdue University)

1. **Distance Learning Growth**
 - Expanded online course offerings by 400%, reducing dependency on Indiana partner institutions and generating approximately \$1 million in annual savings.
 - Developed and implemented new budget models to sustain and strategically support course and program expansion.
2. **Program Oversight**
 - Provided administrative and academic oversight for the Executive MBA, Agribusiness MBA, M.S. in Technology, Online Veterinary Technology, and Teacher Certification programs.
 - Launched new degree programs in Strategic Communication and Curriculum & Instructional Design, expanding the university's online and professional education portfolio.
3. **Revenue Generation**
 - Directed online education initiatives generating approximately \$15 million annually, directly supporting university-wide strategic and operational priorities.

Leadership & Administrative Service

- **Co-Chair**, Development of College of Veterinary Medicine, Arkansas State University (2023–present)
- **Chair/Member**, Multiple Search Committees — including A-State Chancellor, Dean of the College of Business, and Vice Chancellor for Student Affairs (2016–2022)
- **Co-Chair**, Faculty Senate Governance Committee, Arkansas State University (2019–2020)
- **Lead Negotiator**, Non-Tenure Track Union Contracts, Southern Illinois University (2014–2017)
- **Member**, Enrollment Task Force, Arkansas State University (2020)
- **Director**, Purdue Meat Products Laboratory (2008–2012)
- **Panel Member**, USDA Grant Review Panels (2006, 2007)

Leadership Training

- **Leadership 101**, John Maxwell (2009)
- **The 8th Habit**, Stephen Covey (2010)
- **Transformative Leadership Coaching: Understanding Influence & Motivation**, Olin School of Business, Washington University (2013–2022)
- **Executive Presence**, Wharton School of the University of Pennsylvania (2025)

Awards

- *Richard L. Kohls* Outstanding Teaching Award, Purdue University, 2008.
- Teaching Academy Fellow, Purdue University. 2008.
- National Teaching Fellow, North American Colleges and Teaching in Agriculture. 2007.
- Department of Animal Science, Teaching Award, Purdue University. 2001, 2004 and 2007.
- Excellence in Classroom Instruction, USDA. 2004.
- Award of Excellence in Distance Education, Purdue University. 2001.

Excellence in Research

A national and international expert in the area of lipid metabolism, especially as this relates to final food products. Extensively trained many undergraduate, graduate and visiting scientists while at Purdue University and in the area of manipulation of fatty acids, specifically in the fat cells as it relates to growth, stress and/or dietary alterations. Conducted studies on how lipids in fat cells impact final food products such as bratwurst and bacon as well as consumer preferences (texture, mouth feel and appearance). A national leader on the *identification of soft fat in swine, principally the level of linoleic acid (C18:2n6) and how that impacts final food products, specifically bacon and bratwurst.*

Journal Articles

- 1) Peebles, E.D. and M. A. Latour, 2021. Albumen glucose utilization during embryogenesis

and effects of *in ovo* glucose supplementation in broiler hatching eggs. Research & Reviews: [Journal of Agriculture and Allied Science](#)

- 2) Schoonover, J., and M. A. Latour, 2015. Crafting the exam, NACTA (59) 89-90.
- 3) Ellis, C., and M. A. Latour, 2014. Improving course completion rates through the use of a distance learning assistant. JMER Vol 4, No. 11, pages 924-929.
- 4) Apgar, G., B. Banz, and M. A. Latour, 2014. Engaging students in large lecture classes. NACTA (58) 85-86.
- 5) Zhu, Y., S. Arnold, B. Richert, A. Schinckel and M. Latour, 2012. Impact of Distillers Dried Grains with Solubles and Restaurant Grease on Pork Loin Quality. JABR Vol 1(6)102-115. *Student in M. Latour laboratory.*
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- 7) White, H.M., B.T. Richert and M.A. Latour, 2012. Impacts of Nutrition and Environmental Stressors on Lipid Metabolism: ISBN 980-953-307-142-3, Invited Chapter *Student in M. Latour laboratory.*
- 8) White, H.M, B.T. Richert, J.S. Radcliffe, A.P. Schinckel, S. Koser, S.S. Donkin and M.A. Latour, 2009. Feeding conjugated linoleic acid partially recovers carcass quality in pigs fed dried distillers grains with solubles. *J. Anim. Sci.* 87(1) 157-166. *Student in M. Latour laboratory.*
- 9) Wert, K.M., N.R. Augspurger, J.D. Spencer, H.M. White, A.P. Schinckel and M.A. Latour, 2009. Effects of distillers dried grains with soluble and growmega™ on bratwurst meat quality. *Amer. Reg. Prof. Anim. Sci.* 695-700. *Student in M. Latour laboratory.*
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- 11) Platt, J., C.P. Rusk, C.R. Blomeke, B.A. Talbert and M.A. Latour, 2008. An evaluation of digital versatile disc (DVD) instruction, live instruction, and live animals in third grade classrooms. *NACTA* 52(1) 2-5. *Student in M. Latour laboratory.*
- 12) Wagler, S.E., C.P. Rusk, C.R. Blomeke, B.T. Richert, M.A., Latour, and B. A. Talbert, 2008. Classroom evaluation of an elementary educational swine curriculum: there's a pig in my classroom. *J. Ag. Ed.* 49(3) 8-12.
- 13) Zhai, W., S.L. Newman, M.A. Latour and P.Y. Hester, 2008. The effects of *in ovo* injection of L-carnitine on hatchability of white leghorns. *Poult. Sci.* 87(3):569-572.
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animal sciences. *NACTA* 50(2) 32-35.

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- 23) Taylor, J., C.F. Babbs, M.B. Alzghoul, A. Olsen, M.A. Latour, A. Pond, and K. Hannon 2004. Optimization of ectopic gene expression in skeletal muscle through DNA transfer by electroporation. *Biotech.* 4:11-15.
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 - 53) Watkins, B.A., A.A. Devitta, L. Yu and M.A. Latour. 1999. Biological activities of conjugated linoleic acid and designer eggs (Chapter 14). IN: Egg Nutrition and Biotechnology, 2nd Edition. pp. 181-195.
 - 54) Frank, N., J.E. Sojka, M.A. Latour, S.R. McClure and L. Polazzi. 1999. Effect of hypothyroidism on the blood lipid concentrations in horses. *Amer. J. Vet. Res.* 60:730-733. *Student in M. Latour laboratory.*
 - 55) Chen, Z., J.E. Saffitz, M.A. Latour and G. Schonfeld. 1999. Truncated apoB-70.5-containing lipoproteins bind to megalin but not the LDL receptor. *J. Clin. Invest.* 103:1419-1430.
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 - 58) Latour, M.A., D. Hopkins, T. Kitchens and G. Schonfeld. 1998. Effects of feeding a liquid diet for one year to New Zealand White rabbits. *Lab. Anim. Sci.* 48:81-84.
 - 59) Pulai, J.I., M.A. Latour, P. Kwok and G. Schonfeld. 1998. Diabetes mellitus in a new kindred with familial hypobetalipoproteinemia and an apolipoprotein B truncation (apoB-55). *Athero.* 136:289-295.
 - 60) Peebles, E.D., T. Pansky, S.M. Doyle, T.W. Smith, C.R. Boyle, M.A. Latour and P.D. Gerard. 1998. Effects of breeder dietary fat and eggshell cuticle removal on subsequent broiler growout performance. *J. Appl. Poult. Res.* 7:377-383.
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 - 64) Peebles, E.D., J.D. Cheaney, J.D. Brake, C.R. Boyle and M.A. Latour. 1997. Effects of added dietary lard on body weight, and serum glucose and low density lipoprotein cholesterol in random bred broiler chickens. *Poult. Sci.* 76:29-36.

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- 69) Pulai, J., M. Averna R.A.K. Srivastava, M.A. Latour R.E. Clouse and G. Schonfeld. 1997. Normal intestinal dietary fat and cholesterol absorption, intestinal apolipoproteinB (apoB) mRNA levels, and ApoB-48 synthesis in a hypobeta-lipoproteinemic kindred without any ApoB truncation. *Met. Clin. Exp.* 46:1095-1100.
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- 71) Peebles, E.D., J.D. Brake and M.A. Latour. 1997. Broiler performance, yield, and bone characteristics as affected by starter diet fat levels. *J. Appl. Poult. Res.* 6:325-330.
- 72) Peebles, E.D., J.D. Cheaney, J.D. Brake, C.R. Boyle, M.A. Latour and C.D. McDaniel. 1997. Effects of added dietary lard fed to broiler chickens during the starter phase. I. Body and selected organ weights, feed conversion, hematology, and serum glucose. *Poult. Sci.* 76:1641-1647.
- 73) Latour, M.A., E.D. Peebles, C.W. Gardner and G. Schonfeld. 1997. An evaluation of the lipoprotein composition and corresponding apolipoproteins in the newly hatched male and female broiler chick from two different age flocks. *Biol. Neo.* 72:380-388.
- 74) Latour, M.A., S.A. Laiche, J.R. Thompson, A.L. Pond and E.D. Peebles. 1996. Continuous infusion of adrenocorticotropin influences circulating lipoproteins and corticosterone concentrations in chickens. *Poult. Sci.* 75: 1428-1432.
- 75) Peebles, E.D., J.D. Cheaney, K. Vaughn, M.A. Latour, T.W. Smith, R.L. Haynes and C.R. Boyle. 1996. Changes in gonadal weights, serum lipids and glucose during maturation in the juvenile Northern Bobwhite quail (*Colinus virginianus*). *Poult. Sci.* 75:1411-1416.
- 76) Peebles, E.D., M.A. Latour, S.E. Broome, J.D. Cheaney and C.D. Zumwalt. 1996. Effects of oral ethanol on serum lipoprotein cholesterol in juvenile meat-type chickens. *Alcohol*, 13:111-115.
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- 78) Branton, S.L., B.D. Lott, J.D. May, P.A. Hedin, F.W. Austin., M.A. Latour and E.J. Day. 1996. The effects of nonautoclaved and autoclaved water-soluble wheat extracts on the growth of *Clostridium perfringens*. *Poult. Sci.* 75:335-338.
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- 80) Peebles, E.D., E.H. Miller, C.R. Boyle, J.D. Brake and M.A. Latour. 1994. Effect of dietary

thiouracil on thyroid activity, egg production, and eggshell quality in commercial layers. *Poult. Sci.* 73:1829-1837.

- 81) Latour, M.A., E.D. Peebles and J.D. Brake. 1994. The effects of dietary fat on growth performance, carcass composition, and feed efficiency in the broiler chick. *Poult. Sci.* 73:1362-1369.
- 82) Brake, J.D., M.J. Fuller, C.R. Boyle, D.E. Link, E.D. Peebles and M.A. Latour. 1993. Evaluations of whole chopped Kenef and Kenef core used as broiler litter material. *Poult. Sci.* 72:2079-2083.
- 83) Pugh, C.R., E.D. Peebles, N.P. Pugh and M.A. Latour. 1993. Ultrasonography as a tool for monitoring *in ovo* chicken development. 1. Technique and morphological findings. *Poult. Sci.* 72:2236-2246.
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Graduate Student Involvement

Graduated Students: served on numerous graduate committees and either directed or co-directed n=10, MS, PhD – 3; 2 Visiting Scientists and served on numerous committees.

Excellence in Teaching

Lead Instructor – Introduction to Animal Science (ANSC 10200)

Served as the lead instructor for Introduction to Animal Science (ANSC 10200), a foundational course within the Department of Animal Science at Purdue University. Initially offered exclusively on the West Lafayette campus, the course was later expanded to multiple delivery modes to increase accessibility and reach.

In 1998, developed an online version of Introduction to Animal Science, designed specifically for students around the globe and distinct from the on-campus offering. Revenues generated from the online course were reinvested to advance research in distance education, ultimately generating significant revenue while serving the needs of students unable to attend campus. This pioneering work in online learning received national and state recognition (see Awards section for details) and led to membership in the Purdue Teaching Academy.

Additionally, led the development of an Advanced Placement (AP) test in Animal Science for high school students, creating a test-out option for those instructed by qualified high school teachers. This initiative became part of the Core Science requirements in Indiana, providing early college credit opportunities for students pursuing agricultural and animal science pathways.

Led Experiential Learning Opportunities for Undergraduate Students

- 1) Meunier, R.A. Lipid transfer in neonatal chicks treated with various fatty acids, 1998.

- 2) Woodcock, M. Maternal behavior of the chicken. 1999.
- 3) Ockenga, S. Poultry behavior in non-selected chickens during incubation. 2000.
- 4) Weaver, A. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2000.
- 5) Jinks, A. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2001.
- 6) Branson, T. Developed laboratory learning materials for ANSC 10200 and taught one laboratory section of ANSC 10200. 2001.
- 7) Developed laboratory learning materials (n=180 pages) for ANSC 10200 and taught one laboratory section of ANSC 10200. 2002. A. Weaver, A. Jinks, T. Branson, and A. Jasinski
- 8) Bennett, A. Development of a lipoprotein lipase assay for horses. 2001.
- 9) Thomas, M. Evaluating the pigment of layer hens fed specific carotenoids. 2002 (the student presented this material at Creighton Bros., in Warsaw, Indiana and useful information towards a patent).
- 10) Pohle, K. Examining Fatty Acid Profiles of Sows. 2002. (student presented these material at Johnsonville Foods).
- 11) Gordon, L. Investigating the Omega 3 deposition in Sows. 2003-2004 (the student has presented this work at the university agriculture research posters (3rd place), Ball State University and at the national Animal Sciences meeting in St. Louis, MO, 2004. (published).
- 12) Perry, K. Investigating the composition of eggs from different retail markets. 2006.
- 13) Berger, E. Investigating the composition and appearance of sausage in casing from various retail markets. 2006.
- 14) Legan, E. Evaluating growth and carcass changes in cull gilts fed distiller's dried grains with solubles, (published). 2007.
- 15) Kesselbrock, K. Manipulation of fat tissue in sow to create a healthier bratwurst (published work). 2009.
- 16) Kamrath, C. ANSC 49300: Estimating the level of trans fatty acids in a wide range of sausage products. 2008.
- 17) Anspach, A. ANSC 49300: Using digital images to estimate pork belly firmness. 2008.
- 18) Benitez, M. ANSC 49100: Literature review on the use of distillers dried grains with solubles in wild bird diets. 2008.
- 19) Carson, A. ANSC49100: Use of a new form of conjugated linoleic acid in swine to improve fat quality. 2008.
- 20) McIntire, W. ANSC49100. Examine bacon defects in final products. 2008-2009. (This work was used as preliminary data in the recently funded Kraft Foods Grant for \$92,000).

Excellence in Extension

Extensive expertise in poultry and meat products, specifically bratwurst and bacon.

- 1) **Small and Large Producer Assistance:** One of the fastest growing segments of agriculture is the natural and organic sector. USDA reports that growth in retail sales has grown significantly since 1990. Served on the USDA awards panel which distributed

funds for organic farms and was the principal poultry and swine person responsible for reviewing those grant applications.

- 2) **Assistance to Meat Processors:** Along with Dr. Daryl Swartz, served as the technical advisors to the Indiana Meat Processors Association. Provided direct assistance concerning how to handle the bellies of pigs to create the best slice of bacon and expertise on how to create the best bratwurst. In shared responsibilities, workshops on basic knife skills, and pork, beef and poultry processing were done in 2009-2012.
- 3) **State Meats Competition:** Led the meats competitions for the state of Indiana (n=100 participants) and development of the first ever bi-state meats competition between Illinois and Indiana through cooperative relationships with the University of Illinois.
- 4) **State Wide Initiative-Incubators in the Classroom:** In order to increase agriculture awareness, developed created the incubators in the classroom program and the following hands-on teaching components for this program: 1) a story-line coloring book, 2) a teacher's Lesson Guide on incubating chicken eggs, 3) an incubator, and 4) two CD-ROM's.

Impact of the Program

- One hundred fifty preschool and daycare programs with an average enrollment of 20 students per program (total students = 2,920).
- Two hundred ninety-five elementary school classes with an average enrollment of 22 students per class (total students = 7,222).
- Three home-schooling programs with an average enrollment of 4 students (total students = 12).
- Fifteen Agriculture day programs in individual counties with an average participation of 600 persons (total participants = 9,000).
- Two presentations at the Indiana School for the Deaf (24 students) and the Indiana State Museum (1,950 participants).

University Recognition for Incubators in the Classroom: Awarded the 2001 distance learning award as the best non-credit material at Purdue University.

National Recognition for "Incubators in the Classroom:" Since October 2000, various components, e.g., either an embryology poster or CD's have been distributed to 1,235 classrooms, across 42 states.

Extension Publications

- 1) Latour, M.A., and A.P. Schinckel, 2008. The influence of dried distiller's grains on carcass fat in swine. *Ag. Com., AS-345W*.
- 2) Latour, M.A., 2008. Eggs Experiments: A fundamental way to teach science using eggs. *Ag. Com., AS-574-W.pdf*
- 3) Latour, M.A., and T. Applegate. 2005. Getting started with the home poultry flock. *Ag. Com., AS-568W*.
- 4) Meunier, R.A., and M.A. Latour. 2000. Commercial poultry production and processing. *Ag. Com., Purdue University, AS-545-W*.

- 5) Meunier, R.A., and M.A. Latour. 1999. A guide for housing, brooding, and handling chicks safely. *Ag. Com., Purdue University, ACS 527.*
- 6) Linton, R., J. Eiffert and M.A. Latour. 1999. Food safety: it's in your hands. *Ag. Com., Purdue University, FS-8.*
- 7) Latour, M.A., R. Meunier, and K. Wolber. 1998. Incubators in the classroom: A guide for teachers. *Ag. Com., Purdue University, AS-521.*
- 8) Latour, M.A., and A.L. Pond. 1998. Chirp and Shelby's exciting discovery. *Ag. Com., Purdue University, AS-520.*
- 9) Stewart, J., A. McBride, R. Meunier, and M.A. Latour. 1998. The developing chick embryo. *Ag. Com., Purdue University, AS-523.*
- 10) Stewart, J., and M.A. Latour. 1998. The formation of an egg. *Ag. Com., Purdue University, AS-525.*
- 11) Latour, M.A. 1997. Making a chick book. *Ag. Com, Purdue University, AS-519.*
- 12) Akers, D., M. Akers, and M.A. Latour. 1997. Choosing a poultry breed. *Ag. Com., Purdue University, AS-518.*
- 13) Peebles, E.D., M.A. Latour and C.D. Zumwalt. 1994. Pumping up fat in poultry feed. *Res. Highlights, Mississippi State University, 57:2.*
- 14) Brake, J.D., M.J. Fuller, C.R. Boyle, D.E. Link, E.D. Peebles and M.A. Latour. 1994. Kenaf for broiler litter. *Res. Bulletin, Mississippi State University, 1011:24.*
- 15) Peebles, E.D., M.A. Latour and J.D. Brake. 1992. Fat not all bad for broiler chicks. *Res. Highlights, Mississippi State University, 55:3.*

Conference Proceedings

- 1) Richert, B.T. and M.A. Latour. Use of conjugated linoleic acid in swine feeding programs, Swine Nutrition Conference, Indianapolis, Indiana (presentation, September 2009).
- 2) Latour, M.A., 2007. Soft fat in swine as influenced by diet and environment. Carolina Feed Industry Association
<http://www.carolinafeed.com/2007%20CFIA%20Fall%20Program.pdf>
- 3) White, H.M. and M.A. Latour. The impact of added dietary fat on carcass fat quality. 2007. Midwest Swine Nutrition Conference-Indianapolis, Indiana.
<http://www.livestocktrail.uiuc.edu/uploads/porknet/papers/2007%20MWSNC%20Proceedings.pdf> pages 42-48.

Extension Workshops: (chaired or member of approximately 100 different extension workshops)

Invited Presentations (National and International)

1. Welcome for the 2023 Farm Bill hearing (US senators John Boozman and Debbie Stabenow), Arkansas State University, 2022.
2. Challenges in Distance Learning, University of New Orleans, 2018.
3. Distance Learning, Reykjavik University, Iceland, 2017.
4. Design of Dog Treats, Scott Pet, Rockville, IN. 2016.
5. Hypobetalipoproteinaemia Kindreds, Southeastern Louisiana University, 2016.
6. Headwinds of Higher Education, Southeastern Louisiana University, 2016.

7. Creating an Executive i2i Enrichment program for Talented Undergraduates, Purdue University, IN 2014.
8. Expanding Undergraduate Research Discovery, Alabama A & M, 2014.
9. Illinois Agriculture, University of Havana, Cuba, 2014.
10. Vision for Higher Education in Agriculture, University of Illinois, Chicago, 2013.
11. How fat is manipulated in swine, Elanco, IN 2011.
12. Digestibility of pork skin in non-ruminants, PetSmart, Phoenix, Arizona 2011.
13. Lipid stability in pork skin, Costco, Seattle, WA, 2011
14. What causes soft fat in swine, Kent Feeds, IA, 2010.
15. How to develop distance learning programs. University College Dublin, Ireland. 2009.
16. How soft fat alters slicing ability in pork bellies, Oscar Mayer, Madison, WI. 2009.
17. Linoleic acid impact on sausage, Dublin Ireland. 2009.
18. How n6 fatty acids impact bacon quality, Köln, Germany. 2009.
19. Manipulating sow fat during the cull period, United, Sheridan, IN and Galesburg, IL. 2008.
20. Swine fat manipulation with diet and environment, Sempach, *Switzerland*. 2008.
21. Fatty acid metabolism in poultry, Alberta, Canada. 2008.
22. Distillers dried grains with solubles impact in sow carcass fat, Johnsonville, WI. 2008.
23. Estimating *trans fatty acids* using both gas chromatography coupled with near infrared (NIR) technology, Foss North America, Cleveland, OH. 2008.
24. Soft fat in swine both market pigs and sows, Pioneer, IA. 2008.
25. Fat cell formation and fatty acid manipulation in non-ruminants, Southeastern Louisiana University, Hammond, LA. 2008.
26. Soft fat in swine market pigs and sows, SD. 2008.
27. On math in the college of agriculture, Kansas State University, Manhattan, KS. 2008
28. Teaching symposium on distance learning, National American Society of Animal Sciences, Indianapolis, IN. 2008.
29. Use of introduction to animal sciences to satisfy course science requirement in Indiana high schools, Pearl River High School, Pearl River, LA. 2008.
30. Showcase our efforts in distance education for animal agriculture. *Bangalore, India*. 2008.
31. Challenges in distance education courses. *Paris, France*. 2008.
32. Use of digital media in animal sciences. *Zürich, Switzerland*. 2008.
33. How stocking density influences fat metabolism in swine, Smithfield, VA. 2007.
34. Fatty acid manipulation in swine fed distiller's dried grains, Foss North America, NC. 2007.
35. Fat sampling on market pigs and its impact on carcass iodine value, Kent Feeds and Tyson Foods-Swine, IA. 2007.
36. Fat formation in swine, Akey, Lewisburg, OH. 2007.
37. Sow fat manipulation, Johnsonville, Momence, IL. 2007.
38. Soft fat in swine. Midwest Feeding and Nutrition Conference, Indianapolis, IN. 2007.
39. Fat manipulation by diet and environment, North Carolina Feed Conference, Raleigh, NC. 2007.
40. Challenges in distance learning environments, North Central Region-Academic Program, Lincoln, NE. 2007.
41. Effects of heat stress on fat tissue, Smithfield Foods, VA. 2006.
42. Use of gas chromatography to identify soft fat characteristics, Murphy-Brown, Tar Heel,

- NC. 2006.
43. Sausage softness as influenced by the level of linoleic acid, Johnsonville, Watertown WI. 2006.
 44. Use of distiller dried grains as related to soft fat tissue, United Feeds, Sheridan, IN. 2006.
 45. Fatty acid metabolism in fast and slow growing pigs, Premium Standard Farms, Princeton. MO. 2006.
 46. Fatty acid manipulation using conjugated linoleic acid. BASF Corp., New Jersey. 2006.
 47. Student engagement at a distance using virtual teaching assistants in the classroom and beyond, National American Society of Animal Sciences, St Paul, MN. 2006.
 48. Use of digital technology in the classroom for Introduction to Animal Sciences, University of Connecticut, Storrs, CT. 2006.
 49. Implementing learning materials on embryology in the elementary classroom, University of Illinois, Champaign-Urbana. 2005.
 50. Factors that influence fat firmness in pigs, Smithfield Foods, VA. 2005.
 51. Fatty acid alterations in swine, poultry and humans during various phases of life, University of British Columbia, *Vancouver, Canada*. 2005.
 52. Lipid markers in market pigs, BASF Corp., New Jersey. 2004.
 53. Fat manipulation in market pigs during the final phase of feeding, *Merida, Mexico*. 2004.
 54. Fatty acid markers in sows, Johnsonville Sausage Co., Momence, IL. 2004.
 55. Fat firmness in market pigs, *Hermosillo, Mexico*. 2004.
 56. Lipid metabolism in non-ruminant animals, Purina Mills, St. Louis, MO. 2004.
 57. Fatty acid metabolism in non-ruminants (swine and poultry) *Guadalajara, Mexico*. 2004.
 58. Teaching in a virtual classroom to Indiana high school teachers workshop, Indianapolis, IN. 2004
 59. Distribution of fatty acids of sows challenged with various diets, Johnsonville Sausage Co., Watertown, WI. 2003.
 60. Using a variety of different approaches to teach introduction to animal sciences, Ball State University, Muncie, IN. 2003.
 61. Implementing a totally virtual course, Indiana University School of Dentistry, Indianapolis, IN. 2003.
 62. Challenges and opportunities in creating a distance learning course, North Carolina State University, Raleigh, NC. 2003.
 63. Use of conjugated linoleic acid in market pigs, Smithfield Foods, VA. 2003.
 64. Distance learning in animal science, University of Kentucky, Lexington, KY. 2002.
 65. Physiology of the layer hen, BASF, New Jersey. 2002.
 66. Dyslipidemia in avian offspring from young breeders, The Ohio State University, Columbus, OH. 2001.
 67. Lipid metabolism in avian offspring, USDA/ARS, Starkville, MS. 2001.
 68. Metabolism of conjugated linoleic acid, Trouw Nutrition, Highland, IL. 2001.
 69. Delivery of educational material in cooperative extension, West Virginia University, Morgantown, WV. 2001.
 70. The relationship between lipid mobilization and carotenoids in layer hens, BASF Company, New Jersey. 2000.
 71. Delivery of electronic media and international studies, National American Society of Animal Science, Baltimore, MD. 2000.
 72. Effects of conjugated linoleic acid on lipid deposition and circulating lipoproteins, Alpha

Food Ingredients, Chicago, IL. 2000.

73. Improving poultry production, *Honduras*. 1999.

74. Lipid metabolism in avian vs. mammals, Animal Sciences Department, Michigan State University, East Lansing, MI. 1998.

75. Atherosclerotic plaque formation and lipoproteins, University of Michigan School of Medicine. Ann Arbor, MI. 1998.

Grants and Awards

1. Federal

- USDA, Higher Education Challenge Grant. 2010-2012. Development of pathways for high school students to earn college credit. \$450,000, Co-PI.
- USDA, Development of a HACCP and GMP's Train-the-Trainer Program, Food Safety \$50,000, CoPI.
- USDA, Health survey of small poultry flocks, PI, \$72,840.
- USAID, PI (2012-2014) on advancements in agricultural training, \$110,000.

2. Development of an open-campus course, self-supporting, Virtual Introduction to Animal Science. The online course was one of the very first within the College of Agriculture 1998/1999 and was delivered world-wide online (estimated \$1.5 M contribution and continues today). The purpose was to provide educational opportunities for students world-wide and to garner “new” revenue.

3. State and Government Agencies:

- Indiana Value Added Grant: “The effects of conjugated linoleic acid (CLA) on blood cholesterol levels of pigs, pig growth and carcass composition, and the regulation of gene expression, \$60,000. Co-PI”
- To assess a dry egg product in segregated early weaned (SEW) piglets. \$28,000 Co-PI.
- US Poultry and Egg: “Carnitine’s role in improving reproductive efficiency in chicken and turkey breeders”. \$150,000 Co-PI.
- National Pork Board: “Pork quality in sows fed distiller’s dried grains.” \$67,000 PI
- National Pork Board: “Distillers grains in market pigs.” \$60,000 Co-PI.
- Illinois Board of Higher Education: Co-PI. \$700,000 design of dual credit courses.
- Arkansas Department of Agriculture and CARES funds, \$500,000.

4. Industry support for research in lipid metabolism (~1,000,000): Swift Foods, Maple Leaf Farms, Cambridge Isotopes, Purina Mills, Nutreco Nutrition, BASF, Smithfield Foods, and Kraft Foods.

NEZIH PALA, PhD

Phone: [REDACTED]

Email: [REDACTED]

LinkedIn: [REDACTED]

Google Scholar: [REDACTED]

PROFESSIONAL SUMMARY

Accomplished professor and academic leader with a strong record of research excellence, sustained external funding, and impactful mentorship across undergraduate and graduate levels. I bring extensive administrative, industry-engaged, and interdisciplinary experience, including directing major federally funded initiatives (NSF, NIH, DOD SBIR/STTR) and leading diverse faculty and student teams. My background includes strengthening academic programs, fostering collaborative departmental culture, and building robust partnerships with industry, community stakeholders, and alumni. I am committed to elevating Tennessee Tech's ECE Department through strategic growth, faculty development, student success, and innovative research that aligns with the University's priorities.

✓ EDUCATION

✓ PhD	Rensselaer Polytechnic Institute, Troy, NY	Electrical Engineering	2002
✓ MS	Rensselaer Polytechnic Institute, Troy, NY	Electrical Engineering	1999
✓ BS	Middle East Technical University, Ankara, Turkey	Physics	1996

APPOINTMENTS

2025 -	Visiting Professor, Mechanical and Aerospace Engineering, University of Miami
2024 -	Co-Founder & CEO, BPENano Technology, LLC
2024 -	Co-Founder & CEO, TerabrumAI
2024 -	Senior Consultant, LMXAI (https://lkai.app/)
2022 - 2025	Eminent Scholar Chaired Professor, Electrical & Computer Engineering, Florida International University, Miami, FL
2014 - 2022	Associate Professor, Electrical & Computer Engineering, Florida International University, Miami, FL
2008 - 2014	Assistant Professor, Electrical & Computer Engineering, Florida International University, Miami, FL
2002 - 2008	Research Scientist, Sensor Electronic Technology, Inc., Troy, NY
2002 - 2008	Visiting Scholar, Department of ECSE, Rensselaer Polytechnic Institute, Troy, NY
1998 - 2002	Research Assistant, Department of ECSE, Rensselaer Polytechnic Institute, Troy, NY

ACADEMIC LEADERSHIP & ADMINISTRATIVE EXPERIENCE**Graduate Program Director, Electrical & Computer Engineering**

Florida International University (FIU) — 2016–2025

- Led one of the largest Ph.D. programs in the U.S., with ~100 doctoral students and high international enrollment.
- Oversaw all academic operations including admissions, recruitment, funding, mentoring, qualifying exams, annual reviews, student success initiatives, and dissertation defenses.
- Implemented transparent policies for advising loads, research milestones, and doctoral progression.

- Designed and executed curriculum modernization aligned with outcomes-based education frameworks.
- Coordinated multi-unit academic governance, strategic planning, and faculty committees.
- Expanded international partnerships, student mobility programs, and interdisciplinary research training pipelines.

Co-Director, NSF Supported Center ACCELNET Implementation: Broadening Carbon Ring

University of Miami — 2024–Present

Serve as Co-Director for an NSF-funded ACCELNET Implementation program aimed at building a global, interdisciplinary network in carbon-based materials, carbon-enabled devices, sustainable manufacturing, semiconductor-relevant carbon architectures, and carbon-centric engineering research.

- Lead the engineering thrust focused on carbonaceous materials discovery, graphene-derived structures, carbon-based electronic/photonics devices, energy-relevant carbon materials, and multi-scale modeling.
- Guide the development of international research and education consortia, connecting U.S. institutions with leading global laboratories specializing in carbon materials science, nanomanufacturing, and device engineering.
- Coordinate multi-institutional collaboration frameworks, research-exchange programs, student mobility structures, and shared digital infrastructure for knowledge exchange.
- Integrate AI-driven materials modeling, computational tools, and data-centric engineering approaches into the consortium's research agenda.
- Experience developed in this role—network building, international program execution, multi-stakeholder coordination, and advanced materials leadership—is directly transferable to the this leadership position.

Director, Functional Nanomaterials IRES Program (NSF-Funded)

- Directed multi-year international research program connecting students with research laboratories in US and Japan.
- Managed budget, partnerships, curriculum, and student research training.
- Increased global research exposure for underrepresented minority students.

Director, PRECISE Research Experience for Undergraduates (NSF-Funded)

- Led an NSF REU site focused on RF technologies, wireless systems, IoT, and sensing.
- Recruited and trained diverse undergraduate researchers.
- Produced high-impact student research publications and graduate school placements.
- Established experimental labs supporting projects in optoelectronics, plasmonics, sensing, and semiconductor devices.

RESEARCH LEADERSHIP & FUNDING

Federal Research Awards (PI / Co-PI)

- National Science Foundation (multiple awards: CAREER, CISE, REU, IRES, research initiatives)
- National Institutes of Health (digital health & sensing)
- Department of Defense (advanced materials & sensing)
- SBIR/STTR awards in AI/ML based hardware cybersecurity
- Industry contracts in renewable energy (Florida Power & Light Company)
- International funding from Qatar National Research Foundation (QNRF)

Total Funding Secured: Over \$10M across federal and industry sources

RESEARCH PARTNERSHIP

Over my career, I have cultivated a diverse network of partnerships across academia, industry, and government agencies, enabling impactful research, innovation, and workforce development. These collaborations have strengthened institutional capacity, accelerated technology translation, and expanded global research ecosystems.

NSF IUCRC – Center for High-Frequency Electronics and Circuits for Communication Systems (CHECCS):

Played an active leadership role in CHECCS, an NSF-supported multi-university center focused on RF, microwave, mm-wave, and THz devices; integrated microwave photonics; next-generation antennas; computational electromagnetics; and high-frequency communication systems. Worked with partners including DENSO, MITRE, Nano Dimension, NAVY, MaXcentric, and Townes Communications to align academic research with real-world applications in autonomous systems, defense, health monitoring, agriculture, and high-data-rate communications. Contributed to the center's mission of accelerating technology transfer, fostering spinoffs, and strengthening the U.S. workforce pipeline in advanced communications.

DoD-Funded SBIR Collaboration with Electronics of the Future, Inc.: Partnered with Electronics of the Future, Inc. on a Department of Defense SBIR project focused on AI/ML-enabled hardware security testing and verification. Contributed expertise in intelligent sensing, signal analysis, and AI/ML based signal and image analysis to develop novel methods for detecting hardware tampering, side-channel vulnerabilities, and integrity threats in microelectronic systems. This collaboration strengthened my experience at the intersection of defense-grade electronics, AI-driven security methodologies, and semiconductor device evaluation—directly relevant to emerging global challenges in secure manufacturing, supply-chain trust, and resilient communication infrastructures.

Utility & Energy Sector Partnerships: Developed collaborations with Florida Power & Light (FPL), contributing research on renewable-energy integration, grid monitoring systems, and advanced sensors for system reliability and energy forecasting.

Industry & Technology Ecosystem Engagement: Worked with HighRI Optics, Inc and other semiconductor, photonics, materials, and AI startups on developing and prototyping, device architectures, next-generation sensing platforms, and nanomaterial-enabled device manufacturing.

Entrepreneurship & Innovation Ecosystem Collaborations: Through leadership of BPENano Technology and TerabrumAI, built partnerships with AI incubators, venture networks, and materials-science accelerators, creating commercialization pathways for advanced materials, sensing technologies, and agentic AI systems.

These diverse partnerships demonstrate my ability to build complex, high-impact ecosystems—experience directly relevant to establishing a central hub for industry collaboration, government engagement, and international research innovation.

INTERNATIONAL ENGAGEMENT & GLOBAL PARTNERSHIPS

- Led multi-country collaborations with partners in US, Mexico, Europe, India, Japan.
- Built cross-border mobility pathways for research students and faculty exchanges.
- Collaborated with international laboratories in semiconductor devices and materials, education and training, entrepreneurship.
- Developed joint training programs with global academic institutions and industry partners.
- Received internationally competitive funding from Qarar National Research Foundation.

PROFESSIONAL HONORS

- **FIU Presidential Leadership Program 2024 Cohort**
- **FIU Leadership in Tech program, 2025 Cohort**
- **FIU Faculty Award for Excellence in Mentoring, October 2019**
- **FIU Provost Award for Outstanding Graduate Program Director, March 26, 2019**
- **FIU Faculty Award for Excellence in Research and Creative Activities, October 12, 2017**
- **IEEE Senior Member, May 2017**
- **Best Poster Paper Award, IEEE Sensor Conference, November 1, 2016, Orlando, FL**
- **CEC Outstanding Faculty Research Award, 2015**
- **Kauffman Professor Award, February 24, 2011**
- **NSF CAREER Award, February 2010**
- **Paper of the Month, Electronics Letters, November 2008**
- **FBI Citizens' Academy, May 24, 2007**
- **Founders Award of Excellence, November 2000, Rensselaer Polytechnic Institute, Troy, NY.**
- **MRS Best Paper Award, MRS Fall Meeting, November 29- December 3 1999, Boston.**

SERVICES

- **FIU Senate, Fall 2021 – 2023, 2024 – 2025**
- **ECE PhD Graduate Program Director, 2021 - 2025**
- **ECE Search and Screen Committee, 2020 - 2025**
- **College Library Committee, 2020 - 2025**
- **University Academic Policies and Personnel Committee, 2019 - 2025**
- **ECE PhD Graduate Program Director, 2016 - 2020**
- **NIH NIGMS Research Training Initiative for Student Enhancement (RISE) Program Mentor, 2013 - 2018**
- **University Sabbatical Committee, 2017 - 2019**
- **ECE Tenure and Promotion Committee, 2014 – 2016**
- **University Nanotechnology Safety Committee, 2014 – 2015**
- **ECE Nanotechnology Track Director, 2014 - 2025**
- **University Library Committee, 2013 – 2015**
- **College Governing Council, 2012 – 2014**
- **University Dissertation Advisor Status Evaluation Committee (DASEC), 2012 - 2014**
- **ECE Search and Screen Committee, 2011-2012**

TEACHING & CURRICULUM DEVELOPMENT

Teaching Portfolio

- **Semiconductor Devices**
- **Quantum Computing**
- **AI/ML for Engineers**
- **Nanotechnology**
- **Signal Processing**
- **RF & Microwave Engineering**
- **Digital Health Applications**
- **Entrepreneurship**
- **Research Methods & Technical Writing**

Curriculum Leadership

- Designed and modernized undergraduate and graduate EE curricula aligned with ABET.
- Developed new electives in photonics, nanoelectronics, data-driven sensing, and materials science.
- Created industry-connected capstone design experiences and research-based learning modules.
- Championed AI-assisted learning tools and virtual-lab methodologies.

ABET, ACADEMIC QUALITY & PROGRAM DEVELOPMENT EXPERIENCE

- Led outcomes-based curriculum redesign aligned with ABET criteria.
- Developed assessment rubrics, evaluation reports, and continuous-improvement frameworks.
- Built accreditation documentation systems and trained faculty in assessment best practices.
- Experience launching new programs, courses, laboratories, and research centers in greenfield environments.
- Strong understanding of international accreditation and quality assurance models.

LEADERSHIP STYLE & STRATEGIC VISION

- Servant leadership philosophy centered on empowerment, transparency, and shared governance.
- Strong commitment to interdisciplinary collaboration, cross-unit coordination, and institutional mission alignment.
- Vision for a GenAI-enabled engineering school with adaptive learning, digital laboratories, and advanced analytics.
- Deep commitment to workforce development, practice-oriented engineering education, entrepreneurship and regional impact.
- Focus on building a research ecosystem aligned with national energy-transition goals.

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

- **Editorial Board Member**, Energies, 2021 – Present
- **Editorial Board Member**, Biosensors, 2019 – Present
- **Nanodevices Topic Editor-in-Chief**, Nanomaterials and Nanotechnology Journal, September 2015 – Present
- **Associate Editor**, Nanoscience and Nanotechnology Letters, August 2011 – Present
- **Co-Chair**, NanoFlorida International Conference 2025, Miami, FL
- **Co-Chair**, C-MEMS 2025 International Conference, Miami, FL
- **IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2021**, Technical Program Committee Member, (July 7-9, 2021, VIRTUAL, Tampa, FL)
- **IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2020**, Technical Program Committee Member, (July 6-8, 2020, VIRTUAL, Limassol, Cyprus)
- **IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2019**, Technical Program Committee Member, (July 15-17, 2019, Miami, FL)
- **SPIE Conference Committee Member and Session Chair**, Biodegradable Electronics Session, Micro- and Nanotechnology Sensors, Systems, and Applications XI, part of the SPIE Defense + Commercial Sensing Symposium, Baltimore, Maryland, 14 - 18 April 2019
- **MRS University Chapter co-Advisor**, 2019 - 2025

- **IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2018**, Technical Program Committee Member, (July 8-11, 2018, Hong Kong SAR, China)
- **IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2017**, Technical Program Committee Member, (July 3-5, 2017, Bochum, Germany)
- **NSF ECCS-CAREER Review Panel**; Electronics, Photonics and Magnetic Devices (EPMD) Program of the Electrical, Communications and Cyber Systems (ECCS) Division, November 21 - 22, 2016.
- **SPIE Conference Committee Member and Session Chair**; Terahertz Physics, Devices, and Systems X: Advanced Applications in Industry and Defense (Conf 9856), April 17-21, 2016, Baltimore, MD
- **SPIE Conference Committee Member and Session Chair**; Terahertz Physics, Devices, and Systems VIII: Advanced Applications in Industry and Defense, 5 - 9 May 2014, Baltimore, MD
- **WOFE Organizing Committee Member**; Workshop on Frontiers in Electronics (WOFE-2015) December 15 - 18, San Juan, Puerto Rico
- **Guest Speaker in Miami PREP Summer Program**; Nanotechnology: Small World and Great Opportunities, FIU Engineering Center, July 25, 2013
- **Guest Lecturer in Introduction to Engineering**; Electrical Engineering in a new era and in dimensions: Nanotechnology, FIU Engineering Center, May 30, 2013
- **WOFE Organizing Committee Member**; Workshop on Frontiers in Electronics (WOFE-2013) December 17 - 20, 2013, San Juan, Puerto Rico
- **SSL-TR Technical Committee Member**, International Workshop on Solid State Lighting Technologies and Research 2013, August 20-21, Istanbul, Turkey
- **SPIE Conference Committee Member**; Nanoepitaxy: Materials and Devices V, 25 - 29 August 2013, San Diego, CA
- **NSF Review Panel**; Electronics, Photonics and Magnetic Devices (EPMD) Program of the Electrical, Communications and Cyber Systems (ECCS) Division, March 20 - 21, 2013.
- **Hosted FIU CEC Engineering EXPO**, February 2013
- **Judge in Miami Dade School district STEM Expo**; Miami Dade College, North Campus, Science Complex, Saturday, January 26, 2013
- **Technical Program Committee Member**; The 9th International Conference on Electronics, Computer and Computation, ICECCO 2012, November 1-3, 2012, Ankara, Turkey
- **Hosted FIU CEC Engineering EXPO**, February 2012
- **Judge in Miami Dade School district STEM Expo**; Miami Dade College, North Campus, Science Complex, Saturday, January 22, 2012
- **NASA EPSCoR Review Panel**; May 5, 2011
- **NSF Review Panel**; Electronics, Photonics and Magnetic Devices (EPMD) Program of the Electrical, Communications and Cyber Systems (ECCS) Division, January 26 - 27, 2011.
- **SPIE Conference Committee Member**; Micro- and Nanotechnology Sensors, Systems, and Applications III, 25 - 29 April 2011, Orlando, Florida, USA.
- **Hosted FIU CEC Engineering EXPO**, February 2011
- **Advisor of Tau Beta Pi, Engineering Honor Society**; Florida Theta Chapter, October 12, 2010 - 2025
- **Public presentation**; "Nanotechnology", Miami Science Museum, May 23, 2010
- **Hosted FIU CEC Engineering EXPO**, February 2010
- **SPIE Conference Committee Member**; Micro- and Nanotechnology Sensors, Systems, and Applications II, 5 - 9 April 2010, Orlando, Florida, USA.
- **NSF Review Panel**; Electronics, Photonics and Device Technology (EPDT) program of the Program of the Electrical, Communications and Cyber Systems (ECCS) Division, January 6 - 7, 2010.

- **SPIE Conference Committee Member and Session Chair;** Nanosensing: Materials, Devices, and Systems III 1 - 4 October 2006, Boston, MA, USA.
- **SPIE Conference Committee Member and Session Chair;** Nanosensing: Materials and Devices II 23 - 26 October 2005, Boston, MA, USA.
- **SPIE Conference Committee Member and Session Chair;** Nanosensing: Materials and Devices 25 - 28 October 2004, Philadelphia, PA, USA.

PUBLICATIONS IN DISCIPLINE (*Paper titles have the links to the pdf files for convenience*)

- 310+ peer-reviewed journal papers and conference proceedings.
- H-index: 43 Citations: 7365.
- Publications in *ACS Nano*, *Nano Letters*, *Applied Physics Letters*, *Sensors*, *Nanotechnology*, and IEEE conferences.
- Research recognized internationally in nanoelectronics, materials science, and optoelectronics.

BOOK CHAPTERS

8. M.M. Hasan, N. Pala, and M. Shur, "Chapter 8: Current-Driven Terahertz Oscillations in Diamond TeraFET", *Fundamental and Applied Problems in Terahertz-related Devices and Technologies*, pp. 119-129, Edited by: Taiichi Otsuji, Wojciech Knap, Maxim Ryzhii and Michael Shur, June 2025, ISBN: 978-981-12-8682-7 (ebook), 978-981-12-8680-3 (hardcover).
7. S. L. Rumyantsev, N. Pala, M. S. Shur, M. E. Levinshstein, P.A. Ivanov, M. Asif Khan, R. Gaska, (2022). "Low-Frequency Noise In AlGaIn/GaN Heterostructure Field Effect Transistors and Metal Oxide Semiconductor Heterostructure Field Effect Transistors" in *The Random and Fluctuating World* (pp. 419-424), World Scientific Publishing. ISBN: 978-981-125-213-6 DOI: 10.1142/9789811252143_0039
6. N. Akter, N. Pala, W. Knap, M. Shur, "THz Plasma Field Effect Transistor Detectors" in *Fundamentals of Terahertz Devices and Applications*, (pp. 285-322) Wiley Publishing Ed. D. Pavlidis (2021) ISBN: 978-1-119-46071-8, August 2021.
5. S. Kaya, M. Karabiyik, and N. Pala, "Terahertz (THz) detectors", *Photodetectors: materials, devices, applications*, Editor: Bahram Nabet, pp. 373-414, Woodhead Publishing, ISBN: 978-1-78242-445-1 (2016) DOI: [10.1016/B978-1-78242-445-1.00012-9](https://doi.org/10.1016/B978-1-78242-445-1.00012-9)
4. A. Ahmadivand, M. Karabiyik, and N. Pala, "Plasmonic Photodetectors", *Photodetectors: materials, devices, applications*, Editor: Bahram Nabet, pp. 157-193, Woodhead Publishing, ISBN: 978-1-78242-445-1 (2016) DOI: [10.1016/B978-1-78242-445-1.00006-3](https://doi.org/10.1016/B978-1-78242-445-1.00006-3)
3. N. Pala and M. Karabiyik, "Electron Beam Lithography", *Encyclopedia of Nanotechnology*, pp. 718-740, Springer, ISBN 978-90-481-9750-7, (2012). DOI: [10.1007/978-94-017-9780-1_344](https://doi.org/10.1007/978-94-017-9780-1_344)
2. N. Pala and A. N. Abbas, "Terahertz technology for nano applications", *Encyclopedia of Nanotechnology*, pp. 2653-2667, Springer, ISBN 978-90-481-9750-7, (2012). DOI: [10.1007/978-94-017-9780-1_21](https://doi.org/10.1007/978-94-017-9780-1_21)
1. S. L. Rumyantsev, N. Pala, M. S. Shur, M. E. Levinshstein, R. Gaska, M. Asif Khan and G. Simin, "Generation Recombination Noise in GaN-Based Devices", *GaN-based Materials and Devices* ed. R. Davis and M. Shur, World Scientific Publishing Co., ISBN 981-238-844-3, (2004).

PATENTS & INVENTION DISCLOSURES

18. C. Wang, B. Jafarizadeh, A. H. Chowdhury, I. Khakpour, N. Pala, "Multi-modal pressure sensor", Issued: 5/6/2025, Patent #: US- 12292346-B2
17. N. Pala and M. M. Hasan, "Advanced Augmented Assistive Device for Dementia, Alzheimer's Disease, and Visual Impairment Patients", Issued: 1/7/2025, Patent #: US-12191035-B1
16. S. Forouzanfar, I. Khakpour, N. Pala, C. Wang, "Biosensors for Detecting Biomarkers and Methods of Fabricating and Using the Same", Issued: 10/29/2024, Patent #: US- 12130286-B2
15. C. Wang, B. Jafarizadeh, A. H. Chowdhury, N. Pala, "Multi-modal pressure sensor", Issued: 9/17/2024, Patent #: US- 12092536-B1
14. S. Forouzanfar, I. Khakpour, N. Pala, C. Wang, "Biosensors for detecting biomarkers and methods of fabricating and using the same preliminary class", Issued: 9/10/2024, Patent #: US-12085561-B2
13. A. H. Chowdhury, B. Jafarizadeh, N. Pala, C. Wang, "Intelligent automated footwear", Issued: 8/29/2023, Patent #: US-11737507-B1
12. O. Okpoue, N. Pala, C. Wang, "Gradient refractive index lenses and methods of fabricating the same", Issued: 8/8/2023, Patent #: US-11719861-B1
11. O. Okpoue, N. Pala, C. Wang, "Gradient refractive index lenses and methods of fabricating the same", Issued: 7/4/2023, Patent #: US-11693158-B1
10. O. Okpoue, N. Pala, C. Wang, "Glass scintillators and methods of manufacturing the same" Issued: 9/28/2021, Patent #: US-11130283-B2
9. N. Pala, R. Matos, "Phase change material based reconfigurable intelligent reflective surfaces" Filed: 3/8/2021, Issued: 9/28/2021, Patent #: US 11,133,588 B1.
8. N. Okpoue, N. Pala, C. Wang, "Glass scintillators and methods of manufacturing the same" Issued: 3/9/2021, Patent #: US-10940639-B1
7. M. Karabiyik and N. Pala, "Graphene devices for terahertz detection and emission", US Patent #: US-10580924-B2, Filed: 2/28/2019, Issued: 3/3/2020
6. N. Pala, R. Sinha, P. K. Vabbina, "Portable cortisol sensing platform based on compact UV light sources" US Patent#: US-10302557-B2, Filed: 12/06/2016, Issued: 5/28/2019
5. A. Ahmadvand, R. Sinha, B. Gerislioglu and N Pala, "Sensor Platform Based on Toroidal Resonances for Rapid Detection of Biomolecules", US Patent #: US-10288563-B1, Filed: 1/22/2018, Issued: 5/14/2019
4. A. Gaitas and N. Pala, " Direct and Selective Area Synthesis of Graphene Using Microheater Elements", US Patent#: US-10285218-B1 Filed: 5/14/2018 Issued: 5/7/2019

3. N. Pala, B. Gerislioglu, A. Ahmadvand, M. Karabiyik, "Phase-Change Material Based Reconfigurable Antenna", US #: US-9923267-B1, Filed: 7/19/2017, Issued: 3/20/2018.
2. N. Pala, R. Sinha, P. K. Vabbina, "Portable cortisol sensing platform based on compact UV light sources" US Patent#: US-9752980-B1, Filed: 12/06/2016, Issued: 09/05/2017
1. Y. Eroglu, I. Guvenc, N. Pala, "System and Method for Visible Light Communications with Multielement Transmitters and Receivers" US Patent #: US-10027412-B2, Filed: 3/2/2017, Issued: 7/17/2018

PEER REVIEWED JOURNAL ARTICLES

136. B. Jafarizadeh, A. Huda Chowdhury, R. Haque, Y. Wang, N. Pala, and C. Wang, "Piezoresistive pressure sensors in pulse waveform monitoring: A review of biomechanics, related technologies, and machine learning perspectives", *Sensors and Actuators: A. Physical*, in print
135. K. M. Mamun, N. Pala, and Mst S. A. SHAWKAT, "A Comprehensive Review of Machine Learning Approaches for Semiconductor Device Modeling and Simulation", *IEEE Access*, vol. 13, pp. 162969-162991, 2025, DOI: [10.1109/ACCESS.2025.3605856](https://doi.org/10.1109/ACCESS.2025.3605856) (Sept. 2025)
134. R. Haque, C. Wang and N. Pala, "An Ensemble-Based AI Approach for Continuous Blood Pressure Estimation in Health Monitoring Applications", *Sensors* 2025, 25(15), 4574; DOI: [10.3390/s25154574](https://doi.org/10.3390/s25154574) (July 2025)
133. M. M. Hasan, N. Pala, M. Shur, "Dyakonov-Shur Instability in Diamond Terahertz Field Effect Transistors", *Journal of Infrared, Millimeter, and Terahertz Waves*, 46:7 (2025) DOI: [10.1007/s10762-024-01028-2](https://doi.org/10.1007/s10762-024-01028-2) (November 2024)
132. B. Jafarizadeh, A. H. Chowdhury, Md S. I. Sozal, Z. Cheng, N. Pala, C. Wang, "Wearable System Integrating Dual Piezoresistive and Photoplethysmography Sensors for Simultaneous Pulse Wave Monitoring", *ACS Applied Materials & Interfaces*, DOI: [10.1021/acsami.4c17710](https://doi.org/10.1021/acsami.4c17710) (November 2024)
131. F. Alam, M. A. Ahmed, A. H. Jalal, I. Siddiquee, R. Z. Adury, G. M. M. Hossain, and N. Pala, "Recent Progress and Challenges of Implantable Biodegradable Biosensors", *Micromachines* 15,475 (March 2024) DOI: [10.3390/mi15040475](https://doi.org/10.3390/mi15040475) (Cover Feature)
130. M. M. Hasan, C. Wang, N. Pala, M. Shur, "Diamond for High Power, High Frequency, and Terahertz Plasma Wave Electronics", *Nanomaterials*, 14, 460 (March 2024) DOI: [10.3390/nano14050460](https://doi.org/10.3390/nano14050460)
129. G. S. Ghaleb Al-Duhni, M. M. Hasan, N. Pala and M. R. Pulugurtha, "Nanopackaging for FutureG Solutions", *IEEE Nanotechnology Magazine*, (2024) DOI: [10.1109/MNANO.2024.3358691](https://doi.org/10.1109/MNANO.2024.3358691)
128. M. M. Hasan, N. Pala, M. Shur, "Current Driven Terahertz Oscillations In Diamond TeraFET", *International Journal of High Speed Electronics and Systems*, Vol. 33, No. 4 Article no: 2440015 (2024) DOI: [10.1142/S0129156424400159](https://doi.org/10.1142/S0129156424400159)

127. A. H. Chowdhury, B. Jafarizadeh, N. Pala, C. Wang, "Paper-Based Supercapacitive Pressure Sensor for Wrist Arterial Pulse Waveforms Monitoring", ACS Applied Materials & Interfaces, DOI: 10.1021/acsami.3c08720 (2023)
126. B. Jafarizadeh, A. H. Chowdhury, Md S. Islam Sozal, Z. Cheng, N. Pala, C. Wang "Hardware and Protocol for Testing of Piezoresistive Pressure Sensors for Pulse wave Monitoring", IEEE Sensor Letters, DOI: [10.1109/LSENS.2023.3300826](https://doi.org/10.1109/LSENS.2023.3300826) (2023)
125. R. Matos, N. Pala, "A Review of Phase Change Materials and their Potential for Reconfigurable Intelligent Surfaces", Micromachines, 14, 1259 (June 2023) DOI: [10.3390/mi14061259](https://doi.org/10.3390/mi14061259)
124. A. H. Chowdhury, B. Jafarizadeh, N. Pala, C. Wang, "Monitoring and Analysis of Cardiovascular Pulse Waveforms Using Flexible Capacitive and Piezoresistive Pressure Sensors and Machine Learning Perspective", Biosensors and Bioelectronics, Vol. 237, 115449 (October 2023) DOI: [10.1016/j.bios.2023.115449](https://doi.org/10.1016/j.bios.2023.115449)
123. I. Torres, Sadegh M. Aghaei, N. Pala, and A. Gaitas "Selective Area Multilayer Graphene Synthesis Using Resistive Nanoheater Probe" Scientific Reports, 13:7976, (May 2023) DOI: [10.1038/s41598-023-34202-y](https://doi.org/10.1038/s41598-023-34202-y)
122. O. F. Noyan, M. M. Hasan and N. Pala, "A Global Review of the Hydrogen Energy Eco-system", Energies, 16, 1484 (Feb 2023) DOI: [10.3390/en16031484](https://doi.org/10.3390/en16031484)
121. A. H. Chowdhury, B. Jafarizadeh, N. Pala, and C. Wang. "Wearable Capacitive Pressure Sensor for Contact and Non-Contact Sensing and Pulse Waveform Monitoring" Molecules 27, no. 20: 6872 (Oct 2022) DOI: [10.3390/molecules27206872](https://doi.org/10.3390/molecules27206872)
120. B. Jafarizadeh, A. H. Chowdhury, I. Khakpour, N. Pala and C. Wang, "Design Rules for a Wearable Micro-Fabricated Piezo-Resistive Pressure Sensor, Micromachines 13, 838, (May 2022) DOI: [10.3390/mi13060838](https://doi.org/10.3390/mi13060838)
119. R. Matos and N. Pala, "VO₂-based ultra-reconfigurable intelligent reflective surface for 5G applications", Scientific Reports, 12, 4497 (March 2022), DOI: [10.1038/s41598-022-08458-9](https://doi.org/10.1038/s41598-022-08458-9)
118. M. M. H.Pial, A. Tomitaka, N. Pala , and U. Roy, "Implantable Devices for the Treatment of Breast Cancer", J. Nanotheranostics, 3(1), 19-38, (Feb 2022), DOI: [10.3390/int3010003](https://doi.org/10.3390/int3010003)
117. O. Okpowe, V. Drozd, O. Ares-Muzio, N. Pala, C. Wang, "Additive manufacturing of borosilicate glass via stereolithography", Ceramics International, Vol. 48, No. 19, pp. 12721-12728, (May 2022) DOI: [10.1016/j.ceramint.2022.01.141](https://doi.org/10.1016/j.ceramint.2022.01.141)
116. S. Forouzanfar, N. Pala, C. Wang, "In-Situ Integration of 3D C-MEMS Microelectrodes with Bipolar Exfoliated Graphene for Label-Free Electrochemical Cancer Biomarkers Aptasensor", Micromachines , 13(1), 104 (Jan 2022); (Selected as a Feature Paper) DOI: [10.3390/mi13010104](https://doi.org/10.3390/mi13010104)

115. N. Akter, M. M. Hasan, N. Pala, "A review of THz Technologies for Rapid Sensing and Detection of SARS-CoV-2 and Other Viruses" *Biosensors*, 11, no: 10, p. 349 (Sept 2021), DOI: [10.3390/bios11100349](https://doi.org/10.3390/bios11100349)
114. S. Forouzanfar, I. Khakpour, F. Alam, N. Pala, C. Wang, "Novel Application of Electrochemical Bipolar Exfoliated Graphene for Highly Sensitive Disposable Label-Free Cancer Biomarker Aptasensors", *Nanoscale Advances*, 3, pp. 5948-5958, (Aug 2021) DOI: [10.1039/D1NA00470K](https://doi.org/10.1039/D1NA00470K)
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PEER REVIEWED CONFERENCE PROCEEDINGS, ABSTRACTS AND PRESENTATIONS

179. G.M. Mehedi Hossain, Tiham Fayaz, Ahmed Hasnain Jalal, Hasina Huq, Nazmul Islam, Nezhil Pala, Fahmida Alam, "Non-Invasive Electrochemical Detection of Uric Acid Using ZnO-Nanorods Based Flexible Sensor", 248th ECS Meeting, Chicago, IL, USA, October 12-16, 2025
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7. S. Rumyantsev, R. Vajtai, N. Pala, B.Q. Weiz, M.S. Shur, L.B. Kish and P.M. Ajayan, "Noise properties of iron-filled carbon nanotubes", Proceedings of 9th International Symposium Nanostructures: Physics and Technology, St Petersburg, Russia, pp. 418-420, 18-22 June 2001.
6. S. Rumyantsev, M. Levinstein, N. Pala, M. S. Shur, R. Gaska, A. Khan, S. Simin, and J. Yang, "Recombination Generation Noise and Surface States in AlGaIn/GaN-based Field Effect Transistors", 42nd Proceedings of Electronic Materials Conference, p. 35, Denver, Colorado, June 21-23, 2000.
5. S. L. Rumyantsev, N. Pala, M. Shur, M. E. Levinstein, R. Gaska, M. Asif Khan, and G. Simin, "Effect of the gate leakage current on noise properties of GaN/AlGaIn HFETs", Proceedings of International Workshop on Nitride Semiconductors; Tokyo, Japan : Inst. Pure & Appl. Phys, 2000, 1002, pp. 938-41.
4. S. L. Rumyantsev, N. Pala, M. S. Shur, R. Gaska, M. E. Levinstein, M. Asif Khan, G. Simin, X. Hu, and J. Yang, "Low Frequency noise in GaN Field Effect Transistors", MRS 2000 Fall Meeting, Boston, Massachusetts, November 27 - December 1, 2000.
3. S. L. Rumyantsev, N. Pala, M. S. Shur, M. E. Levinstein, R. Gaska, X. Hu, J. Yang, G. Simin, and M. Asif Khan, "Low frequency noise in GaN-based transistors", Proceedings 2000 IEEE/ Cornell Conference on High Performance Devices (Cat. No. 00CH37122); Piscataway, NJ, IEEE, 2000, 274 pp. 257-64. DOI: [10.1109/CORNEL.2000.902547](https://doi.org/10.1109/CORNEL.2000.902547)
2. N. Pala, J. Lu, B. Peatman, M. Hurt, M. Shur, "High Temperature Performance of Heterodimensional Junction Field Effect Transistors", APS Centennial Meeting, Atlanta, 20-26 March, 1999.
1. N. Pala, R. Gaska, M. Shur, J. W Yang and M. Asif Khan, "Low-Frequency Noise in SiO₂/AlGaIn/GaN Heterostructures on SiC and Sapphire Substrates", Materials Research Society Fall 99 Symposium Proceedings Vol. 595, pp. W11.9.1-6. (1999) DOI: [10.1557/PROC-595-F99W11.9](https://doi.org/10.1557/PROC-595-F99W11.9)

Christy Wheeler West



Education

University of Alabama, Tuscaloosa

- B.S. Chemical Engineering, *summa cum laude*, 1996

Georgia Institute of Technology, Atlanta

- Ph.D. Chemical Engineering, 2001
- Dissertation: "Phase-Transfer Catalysis in Supercritical Fluid Solvents"
- Advisors: Charles A. Eckert and Charles L. Liotta
- Minor: Organic Chemistry

University of Minnesota, Minneapolis

- Post-doctoral research associate, 2001-2003
- Department of Chemical Engineering and Materials Science
- Advisor: Lanny D. Schmidt

Appointments

2025 - present	Tennessee Technological University Associate professor, Department of Chemical Engineering
2018 - 2025	University of South Alabama, Mobile, Alabama Director, Office of Undergraduate Research
2017- 2025	University of South Alabama, Mobile, Alabama Associate professor, Department of Chemical and Biomolecular Engineering
2011-2017	University of South Alabama, Mobile, Alabama Assistant professor, Department of Chemical and Biomolecular Engineering
2009-2011	University of South Alabama, Mobile, Alabama Adjunct professor, Department of Chemical and Biomolecular Engineering Adjunct professor, Department of Chemistry
2004-2008	College of St. Catherine, St. Paul, Minnesota Instructor, Department of Chemistry
2003-2005	University of St. Thomas, St. Paul, Minnesota Adjunct professor, Department of Chemistry Adjunct professor, Department of Mathematics

Leadership Activities and Accomplishments

Direction of Office of Undergraduate Research, University of South Alabama

Managed an office with one staff member and ~\$200,000 annual budget for seven years, including planning and execution of summer research programs, coordination of an undergraduate research symposium, training new faculty on undergraduate research mentorship, and oversight of compliance for undergraduate research projects.

Highlighted achievements:

- Increased stipend for summer fellows by 20% while holding costs constant by inviting faculty with available funding to share costs and offering benefits for doing so
- Created Undergraduate Research (UGR) courses that record student research experience on transcripts and mentorship in teaching record while eliminating other paperwork
- Instituted Mentor Honor Roll and Mentor of the Year awards to highlight the often-unrecognized contributions of undergraduate research mentors
- Initiated reclassification of secretary position to a shared coordinator to attract more qualified assistance at similar cost
- Coordinated with campus Quality Enhancement Program director to adapt summer program participant progress reports to incorporate reflections on career competencies
- Redesigned summer programming with mini-conferences to replace weekly workshops, responding to changes in student needs and expectations and making offerings more inclusive with regard to academic discipline

Establishment of an S-STEM Consortium, University of South Alabama

Led a multidisciplinary, multi-institutional team to envision, design, budget, and propose a project to provide scholarships, academic supports, and programming for low-income students pursuing math-intensive STEM degrees

Highlighted achievements:

- Secured ~\$100,000 planning grant from NSF to fund proposal preparation
- Facilitated data collection through institutional research offices and financial aid offices at three institutions to inform project budgeting
- Coordinated efforts between instructors and department chairs at the university and two community colleges to design interventions to promote retention of pre-calculus students
- Wrote a successful proposal for a ~\$5,000,000 award from NSF to establish the program

ASEE/AICHE Summer School for Chemical Engineering Faculty

Was nominated and appointed by division to carry out the 18th Summer School, a tradition in our profession, first held in 1931, that focuses on teaching training, professional development, and community-building for chemical engineering faculty in their first five years.

A work in progress, with activities including:

- Recruited a planning committee of faculty from across the US with a range of backgrounds
- Selected a conference site and began managing conference logistics
- Directing programming plans to meet community needs
- Working to secure ~\$300,000 of corporate and foundation sponsorship

Honors and awards

- 2023 Corcoran Award (Chemical Engineering Division of ASEE)
- 2022 Gary Leach Recognition Award (American Institute of Chemical Engineers)
- Mortar Board Honor Society "Top Prof", 2013, 2014, 2016, 2022, 2025
- 2020 Andy and Carol Denny National Alumni Association Excellence in Teaching Award
- Poster Award, ASEE Chemical Engineering Summer School, 2017
- College of Engineering Excellence in Teaching Award, 2014
- Gulf Coast Advance Spotlight Scientist, March 2014
- Georgia Tech School of Chemical Engineering Teamwork Award, 2000
- Georgia Institute of Technology President's Fellow, 1996-2000
- Tau Beta Pi, The Engineering Honor Society, 1994
- Omega Chi Epsilon Chemical Engineering Honor Society, 1994
- Alpha Chi Epsilon Chemistry Honor Society, 1994
- Pi Mu Epsilon Mathematics Honor Society, 1994

Active professional membership and leadership roles

- American Institute of Chemical Engineers
 - Education Division Executive Committee, current past chair
 - Education and Accreditation Committee
- American Society of Engineering Education
 - 2027 ASEE/AICHE Summer School for Engineering Faculty, Chair
- ABET
 - Chemical Engineering program evaluator
- Tau Beta Pi Engineering Honor Society
- Omega Chi Epsilon Chemical Engineering Honor Society
 - Faculty advisor

Research and Scholarship Activities

Current research topics

Transfer student success initiatives

Developing interventions for both students and community college faculty and staff to promote success and shorten time to degree

Persistence in STEM for students placing in pre-calculus courses

Creating pathways and support to calculus-intensive degrees for students who are at risk because their pre-college preparation does not prepare them to begin in calculus

Faculty perspectives on undergraduate research

Understanding motivating and detracting factors for faculty to engage in the high-impact practice of including undergraduate students in their research programs

Student professional development through undergraduate research

Investigating the impact of undergraduate research experiences in developing the NACE competencies and role of student reflection writing in recognizing that development

Alternative assessment in chemical engineering courses

Exploring how repeated opportunities to demonstrate mastery of learning outcomes outside of a testing environment promotes student engagement in the learning process

Peer-Reviewed Publications and Proceedings

Progress in Undergraduate Research in Chemical Engineering. C.W. West and J.H. Holles, *Chemical Engineering Education* (invited contribution to 60th anniversary volume, in review).

Undergraduate Research in Chemical Engineering: Benefits and Barriers for Faculty. C.W. West and J.H. Holles, *Proceedings of the 2025 ASEE Conference and Exposition*. 2025.

Reflections from S-STEM Scholars: Relative Importance of Integrating Transfer Students into University Culture or College of Engineering Community. C.W. West and N.T. Carr. *Proceedings of the 2025 ASEE Conference and Exposition*. 2025.

Undergraduate Research in Chemical Engineering: Benefits and Best Practices. C.W. West and J.H. Holles, *Chemical Engineering Education* Fall 2023.

How we teach: Capstone Design. L.P. Ford, J. Brennan, J. Cole, K.D. Rahm, M.V. Jamieson, L. Landherr, D.L Silverstein, C.W. West, S.W. Thiel. *Proceedings of the 2023 ASEE Conference and Exposition*. 2023.

Engaging Transfer Students in a College of Engineering. C.W. West, E.J. Steward, J.D. Richardson, T.G. Thomas, N.T. Carr. *Proceedings of the 2023 ASEE Conference and Exposition*. 2023.

How we teach: material and energy balances. L.P. Ford, J. Brennan, J. Cole, K.D. Rahm, M.V. Jamieson, L. Landherr, D.L. Silverstein, C.W. West, S.W. Thiel. *Proceedings of the 2022 ASEE Conference and Exposition*. 2022.

AICHE Virtual Communities of Practice – Supporting Faculty During the COVID-19 Pandemic, M.W. Liberatore, D. Lepek, L. Ford, T. Carter, J. Pascal, M. Lamm, C.P. Luks, D.L. Silverstein, A.N. Ford Versypt, S.B. Velegol, T. Vogel, N. Raikar, M. Kipper, C.W. West. *Chemical Engineering Education*, Winter 2022.

Streamlining the Path from Community College to Engineering Degree Completion, C.W. West, E.J. Steward, J.R. Richardson. *Proceedings of the 2021 ASEE Conference and Exposition*. 2021.

How we teach: kinetics and reactor design. L.P. Ford, J. Brennan, D.L. Silverstein, C.W. West, S.W. Thiel, K.D. Rahm, J. Cole, M.V. Jamieson. *Proceedings of the 2021 ASEE Conference and Exposition*. 2021.

The Role of Urea in the Solubility of Cellulose in Aqueous Quaternary Ammonium Hydroxide, M. Walters, A. Mando, W.M. Reichert, C.W. West, K.N. West, B. Rabideau, *RSC Advances*, 2020, 10 (10), 5919-5929.

Superhydrophobic Functionalization of Cotton Fabric via Reactive Dye Chemistry and a Thiol-ene Click Reaction, A. Brown, M. Bozman, T. Hickman, M.I. Hossain, T. G. Glover, K.N. West, C.W. West, *Ind. Eng. Chem. Res.*, 2019, 58 (50) 22534-22540.

How We Teach: Thermodynamics. M.A. Vigeant, J. Cole, K.D. Dahm, L.P. Ford, L.J. Landherr, D.L. Silverstein, C.W. West. *Proceedings of the 2019 ASEE Conference and Exposition*. 2019.

Impacts of calcination on surface-clean supported nanoparticle catalysts. K. Bryant, C.W. West, and S.R. Saunders. *Applied Catalysis A: General*, 2019, 579, 58-64.

Synthesis and Characterization of UiO-66-NH₂ Metal-Organic Framework Cotton Composite Textiles, M. Bunge, K.N. West, C.W. West, T.G. Glover, *Ind. Eng. Chem. Res.*, 2018, 57 (28), 9151-9161.

A service learning project on aluminum recycling: developing professional skills in a material and energy balances course. C.W. West. *Chemical Engineering Education*, Winter 2017.

Alumina-supported Pt-CeO_x water-gas shift catalysts prepared by supercritical fluid deposition, J.W. Deal, P.T. Le, C.B. Corey, K. More, C.W. West. *J. Supercritical Fluids*, 2017, 119, 113-121.

Fusion and thermal degradation behavior of symmetric sulfur-containing quaternary ammonium bromides. T.L.Y. Huynh, K. Poiroux, R.A. O'Brien, K.N. West, J.H. Davis, Jr., and C.W. West, *J. Phys. Chem. B*, 2016, 120 (7), 1330-1335.

Guess my birthday: Demonstrating the significance of significant figures. C.W. West. *Chemical Engineering Education*. Fall 2015.

Impact of Sulfur Heteroatoms on the Activity of Quaternary Ammonium Salts as Phase-Transfer Catalysts for Nucleophilic Displacement Reactions. C.W. West, R.A. O'Brien, E.A.

Salter, B.E. Hollingsworth, T.L. Huynh, R.E. Sweat, N.J. Griffin, A. Wierzbicki, J.H. Davis, Jr. *J. Molecular Catalysis A: Chemical*, 2015, 282-288.

A simple and rapid route to novel tetra(4-thiaalkyl)ammonium bromides. R.A. O'Brien, C. Wheeler West, B.E. Hollingsworth, A.C. Stenson, C.B. Henderson, A. Mirjafari, N. Mobarrez, K.N. West, K.M. Mattson, E.A. Salter, A. Wierzbicki, J.H. Davis, Jr. *RSC Adv.*, 2013, 3 (46), 24612-24617.

The water gas-shift reaction at short contact times, C. Wheeler, A. Jhalani, E. J. Klein, S. Tummalala and L. D. Schmidt, *Journal of Catalysis* 2004, 223, 191-199.

Phase-Transfer-Catalyzed Intramolecular Cycloalkylation of Phenylacetonitrile with α,ω -Dibromoalkanes in Supercritical Ethane, J.P. Jayachandran, C. Wheeler, B.C. Eason, C.L. Liotta, and C.A. Eckert, *J. Supercritical Fluids* 2003, 27, 179-186.

Phase-Transfer-Catalyzed Alkylation of Phenylacetonitrile in Supercritical Ethane, C. Wheeler, D.R. Lamb, J.P. Jayachandran, J.P. Hallett, C.L. Liotta, and C.A. Eckert, *Ind. Eng. Chem. Res.* 2002, 37, 1763-1767.

Ionic liquids as catalytic green solvents for nucleophilic displacement reactions, C. Wheeler, K.N. West, C.L. Liotta, C.A. Eckert, *Chem. Commun.* 2001, 887-888.

In Situ Formation of Alkylcarbonic Acids with CO₂, K.N. West, C. Wheeler, J.P. McCarney, K.N. Griffith, D.M. Bush, C.L. Liotta, C.A. Eckert. *J. Phys. Chem. A* 2001, 105, 3947-3948.

Phase-Transfer Catalysis in Supercritical Carbon Dioxide: Kinetic and Mechanistic Investigations of Cyanide Displacement on Benzyl Chloride, K. Chandler, C.W. Culp (Wheeler), D.R. Lamb, C.L. Liotta, C.A. Eckert, *Ind. Eng. Chem. Res.* 1998, 37, 3252-3259.

Book Chapters

Catalysis Using Supercritical or Subcritical Inert Gases under Split-Phase Conditions, P.G. Jessop, C.A. Eckert, C.L. Liotta, J. Bonilla, J.S. Brown, R. Brown, C. Thomas, C. Wheeler, and D. Wynne, *Clean Solvents*, ACS Symp. Ser. 819, L. Moens and M.A. Abraham (Eds.), American Chemical Society, Washington, D.C. 2002.

Phase-transfer and ammonium salt catalyzed reactions, C.A. Eckert, C.L. Liotta, C.W. Culp (Wheeler), D.R. Lamb, *Chemical Synthesis using Supercritical Fluids*, P.G. Jessop and W. Leitner (Eds.), VCH/Wiley, Weinheim, 1999.

Workshop

Undergraduate Research: Benefits and Best Practices. C.W. West and J. Holles.

- ASEE/AICHE Summer School for Engineering Faculty, Golden, CO, July 2022.
- ASEE Conference and Exposition, Portland, OR, June 2024.

Conference Presentations

- Motivations and Practices in Undergraduate Research Mentorship, AIChE Annual Meeting, Boston, November 2025.
- Recalibrating Student Learning Goals using Bloom's Taxonomy, C.W. West. AIChE Annual Meeting, Phoenix, November 2022.
- Nucleophilic Aromatic Substitution in High-Temperature Ionic Liquids, A. Eftekhari, E. Anderson, J.H. Davis Jr., K.N. West, B.D. Rabideau, and C.W. West, AIChE Annual Meeting, Boston, November 2021.
- Creating an Immersive, Interactive 3D Virtual Exhibit Space for Student Interaction, J. Shelley-Tremblay, K. Jahnke, D. Woolverton, and C.W. West, Conference on Teaching and Learning, Mobile, 2021.
- Switchable Surfactants for the Preparation of Monodisperse, Supported Nanoparticle Catalysts and the Effects of Calcination. K. Bryant, S.R. Saunders, C.W. West and G. Ibrahim, AIChE Annual Meeting (Virtual), November 2020.
- Ionic Liquids as Solvents for Nucleophilic Aromatic Substitution Reactions. E. Anderson, C.W. West, K.N. West and J.H. Davis Jr, AIChE Annual Meeting (Virtual), November 2020.
- Laying a Foundation with Outcome Assessment in Material and Energy Balances, C.W. West, AIChE Annual Meeting Orlando, FL, 2019.
- Integrating VBA-Excel into the Curriculum across Seven Junior-Year Courses, K.N. West, C.W. West, B.D. Rabideau, AIChE Annual Meeting, Orlando, 2019.
- Starting Early and Small with Technical Communications: Sophomores, Plots, and Captions. C.W. West, AIChE Annual Meeting, Pittsburgh, 2018.
- Functionalization of Cellulose Surfaces using Dye Anchors and Click Chemistry, C.W. West, A. Brown, C. Moran, M. Bozman, T.G. Glover and K.N. West. AIChE Annual Meeting, Pittsburgh, 2018.
- Versatile Surface Modifications for Functionalization of Fibers, C.W. West, K.N. West, T.G. Glover, M. Bozman, C. Moran, AIChE Annual Meeting, Minneapolis, 2017.
- Improving Student Writing Using Word Clouds, C.W. West, ASEE Chemical Engineering Summer School, Raleigh, 2017.
- Developing Professional Skills through a Service Learning Project on Aluminum Recycling, C.W. West, AIChE Annual Meeting, San Francisco, 2016.
- Highly Dispersed Metals on Metal Oxide Supports Via Reactive Deposition from Supercritical CO₂, J.W. Deal, K.N. West, C.W. West, AIChE Annual Meeting, Atlanta, 2016.
- Integrating Technical Content and Soft Skills Development in an Engineering Course through a Project Promoting Aluminum Recycling, C.W. West, Conference on Teaching and Learning, Mobile, 2016.
- Impact of Sulfur Heteroatoms on the Activity of Quaternary Ammonium Salts as Phase Transfer Catalysts, C.W. West, R.A. O'Brien, E.A. Salter, T. Huynh, A. Wierzbicki, and J.H. Davis, Jr., AIChE Annual Meeting, Salt Lake City, 2015.
- Water-Gas Shift Reaction on Catalysts Prepared using Supercritical Fluid Deposition, C.W. West, J.W. Deal, C.B. Corey, and P. Le, AIChE Annual Meeting, Atlanta, 2014.

Catalyst Preparation by Addition of Metal Ions During the Synthesis of Silica Aerogels, J. Youngpeter and C.W. West, AIChE Annual Meeting, Atlanta, 2014.

Dispersed Pt/Ceria Catalysts for Water-Gas Shift Prepared Using Supercritical Fluid Deposition, J.W. Deal, P.T. Le, C.B. Corey, and C.W. West, AIChE Annual Meeting, Atlanta, 2014.

Separations Using Supercritical CO₂ Deposited Adsorbents, S. Woodard, K.N. West, J.W. Deal, C.W. West, and, AIChE Annual Meeting, Atlanta, 2014.

Supercritical Fluid Deposition of Dispersed Platinum on Supported Ceria, C.W. West, J. W. Deal, C.B. Corey, AIChE Annual Meeting, San Francisco, 2013.

Novel Quaternary Ammonium Salts as Phase-Transfer Catalysts, B.E. Hollingsworth, C.W. West, ACS Spring Meeting, New Orleans, 2013.

Kinetic Evaluation of Novel Sulfur-Containing Quaternary Ammonium Salts as Phase Transfer Catalysts, C.W. West, R.A. O'Brien, A. Mirjafari, J.H. Davis, Jr., AIChE Annual Meeting, Pittsburgh, 2012.

Catalysts for Water-Gas Shift in Millisecond Reactors, C. Wheeler, E.J. Klein, L.D. Schmidt, AIChE Annual Meeting, Indianapolis 2002.

Environmentally Benign Solvent Systems for Chemical Reactions and Processes, C.L. Liotta, J.S. Brown, K.N. West, J.P. Hallett, J.P. McCarney, S.A. Nolen, C.W. Culp (Wheeler), K.N. Griffith, C.A. Eckert, R. Gläser, ACS Joint Southeast-Southwest Regional Meeting, New Orleans 2000.

Novel Single-Phase Fluorous-Organic Systems for Environmentally Benign Processing, K.N. West, J.P. Hallett, J.S. Brown, C.W. Culp (Wheeler), D.M. Bush, C.L. Liotta, C.A. Eckert, AIChE Annual Meeting, Los Angeles 2000.

CO₂-Alcohol Systems for Novel in situ Acid Generation, C.W. Culp (Wheeler), K.N. West, J.P. McCarney, K.N. Griffith, C.L. Liotta, C.A. Eckert, AIChE Annual Meeting, Los Angeles 2000.

CO₂-Soluble Phase-Transfer Catalysts for Reactions in Supercritical Fluids, C.W. Culp (Wheeler), K.N. Griffith, C.L. Liotta, C.A. Eckert, 4th Annual Green Chemistry and Engineering Conference, Washington, D.C. 2000.

Phase-Transfer Catalysis in Supercritical Fluid Systems, C.W. Culp (Wheeler), C.L. Liotta, C.A. Eckert, United Engineering Foundation Conference on Supercritical Fluids in Materials Processing and Synthesis, Davos, Switzerland, 1999.

Phase-Transfer-Catalyzed Reactions in Supercritical Fluid Systems, C.W. Culp (Wheeler), K.N. Griffith, C.L. Liotta, C.A. Eckert, ACS Annual Meeting, New Orleans, 1999.

Phase-Transfer Catalysis in Supercritical Fluids, C.W. Culp (Wheeler), D.R. Lamb, K. Chandler, C.L. Liotta, C.A. Eckert, AIChE Annual Meeting, Miami Beach, 1998.

Current Funding

STEM STARS: A Partnership to Build Persistence to Math-Intensive Degrees in Low-Income Students, E.J. Steward, C.W. West, D. Gossen, A. Pavelescu, M. Byrne, NSF S-STEM, \$4,999,979, 2026-2032.

Past Funding

Collaborative Planning for a Partnership to Build Persistence in Math-Intensive Degrees for Low-Income Students, C.W. West (PI), D. Gossen, A. Pavelescu, M. Byrne, NSF S-STEM, \$98,491, 2023-2024.

Linking Community College Students to Engineering, C.W. West (PI), E.J. Steward, J.D. Richardson, T.G. Thomas, N.T. Carr, NSF S-STEM, \$1,000,000. 2019-2025.

Development of Next Generation CO₂ Capture Processes for Naval Applications, Office of Naval Research, K.N. West (PI), W.M. Reichert, J.H. Davis, B.D. Rabideau, C.W. West (co-PI), \$4,766,507, 2022-2024.

26th Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2024.

25th Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2023.

BASF Teens' Lab 2022, C.W. West (PI), A. Stenson, BASF Corporation, \$14,767. 2022.

24th Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2022.

Understanding the Molecular-Level Interactions Between Ionic Liquids and Molecular Species to Design and Develop Novel Solvent Systems for Energy Efficient Processes, K.N. West, W.M. Reichert, J.H. Davis, C.W. West (co-PI), B.D. Rabideau, Department of Energy, \$2,828,833. 2019 – 2021. Renewal, \$999,948. 2021-2022.

BASF Teens' Lab 2021, C.W. West (PI), A. Stenson, BASF Corporation, \$15,000. 2021.

23rd Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2021.

BASF Teens' Lab 2020, C.W. West (PI), A. Stenson, BASF Corporation, \$15,000. 2020.

22nd Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2020.

BASF Teens' Lab 2019, C.W. West (PI), J.W. Coym, J.W. Steadman, BASF Corporation, \$14,236. 2019.

21st Annual Summer Undergraduate Research Fellowship Program, C.W. West, Alabama Space Grant Consortium (NASA), \$20,000. 2019.

BASF Teens' Lab 2018, C.W. West (PI), J.W. Coym, J.W. Steadman, BASF Corporation, \$13,259. 2018.

BASF Teens' Lab 2017, C.W. West (PI), J.W. Coym, J.W. Steadman, BASF Corporation, \$20,948. 2017.

Solar Water Splitting on Metal-Decorated Titania, C.W. West, University of South Alabama Office of Research and Economic Development, \$25,000.00. 2016 – 2017.

BASF Teens' Lab 2020, C.W. West (PI), A. Stenson, BASF Corporation, \$15,000. 2020.

Investigation of a Novel Hybrid Absorbent for Oil Spill Remediation, C.W. West (PI), K.N. West, T.G. Glover, Center for Environmental Resiliency, \$20,000. 2015 – 2017.

Travel Grant – Catalyst Characterization at Oak Ridge National Laboratory, C.W. West, Gulf Coast NSF - ADVANCE, \$4,000. 2015 – 2016.

Nanoscale Modification of Fibers via Reactive Dye Chemistry, K.N. West, T.G. Glover, West, C. W. (Co-PI), Army Research Office, \$50,000. 2013 – 2014.

Synthesis and Characterization of Catalytic Noble Metal Decorated Ceria Aerogels, C.W. West, University of South Alabama Faculty Development Council, \$5,500. 2012 – 2013.

Teaching and Student-focused Activities

Courses taught

Chemical Engineering

- Material balances
- Energy balances
- Technical communication
- Chemical reactor design
- Chemical reactor analysis (graduate)
- Research seminar (graduate)

General Engineering

- Introduction to engineering and design
- Engineering thermodynamics
- Energy and sustainability
- Research integrity seminar (graduate)

Chemistry, Math, and Honors

- General chemistry I and II and labs
- Organic chemistry 1 and II and labs
- Chemistry for nurses
- Finite mathematics
- Introduction to honors senior project

Student Workshops Presented

- Creating attractive, engaging, and informative research posters
- Responsible conduct of research for undergraduate researchers
- What is graduate school and should I go?
- Tips for graduate school and fellowship applications

Page 21 of 38 | Created 11-21-2025 12:43:35 | Christy West

Student Organization Advisement

• Omega Chi Epsilon faculty advisor (TN Tech)	2025-present
• Omega Chi Epsilon founding faculty advisor (South Alabama)	2014-2025
• Tau Beta Pi faculty co-advisor (South Alabama)	2012-2025
• AIChE student chapter faculty advisor (South Alabama)	2011-2017

Student Research Direction**Thesis committee chair**

Doctoral students	1
Master's degree students	4
University honors students	8
Departmental honors students	11

Thesis committee member

Master's degree students	13
University honors students	10

Professional and Institutional Service and Outreach**Professional Service**

<i>Chemical Engineering Education</i> Publication Board	2025-present
AIChE Education and Accreditation Committee	2025-present
ASEE/AIChE Summer School for Chemical Engineering Faculty, Chair of 2027 Summer School	2023-present
ABET program evaluator representing AIChE	2020-present
AIChE Education Division	2025-present
• Division Past-Chair	2022-2025
• Division Chair	2021-2023
• Division 1 st Vice Chair	2019-2021
• Division 2 nd Vice Chair	2019-2023
• Annual Meeting Education Division programming chair	2020-2022
• Awards committee	2018-2023
• Survey/Curriculum committee	2021
• Reactor design/Process Control/Computing Virtual Community of Practice leader	2020
• Material and Energy Balances/Thermodynamics Virtual Community of Practice leader	2017, 2018, 2019, 2020, 2021, 2023, 2025
• Annual Meeting session chair	

Page 22 of 38 | Created 11-21-2025 12:43:35 | Christy West

- Annual Meeting student poster competition judge 2014, 2015, 2017, 2018
- Annual Meeting student paper competition judge 2013

Proposal review activities

- NSF – DUE IUSE and S-STEM 2019
- NSF – GRFP, Chemical Engineering 2016
- NSF – CBET Catalysis and Biocatalysis 2012-2016
- DoE EPSCoR 2014

Journal reviews

Applied Catalysis B: Environmental, New Journal of Chemistry, Journal of Molecular Liquids, Industrial and Engineering Chemistry Research, Chemical Engineering Education, Computer Applications in Engineering Education, Fuel, Composite Interfaces, Korean Journal of Chemical Engineering

University Service

Tennessee Tech

- SACSCOC Compliance Committee 2025-present

South Alabama

- Search committee: Vice-President for Research and Economic Development 2024
- General Education Committee 2023-2025
- College Research Council 2023-2025
- Jaguar Medallion Committee 2023-2025
- JED Task Force on Student Mental Health 2023-2024
- University Committee on Undergraduate Research, Chair 2018-2025
- Honors College Faculty Advisory Council 2017-2025
- Process Improvement Committee 2017-2021
- University Scholarship and Financial Aid Committee 2015-2025
- Search committee: Honors College Dean 2022
- Code of Ethics Ad Hoc Committee 2019
- Search committee: Center for Integrative Studies in STEM Director search 2019, 2021
- Student Success Summit panelist 2017, 2018
- Facilities Needs Ad Hoc Committee 2017-2018
- Academic Misconduct Policy Review Ad Hoc Committee 2015-2017
- University Committee on Electronic Learning 2015-2018
- Learning Communities Coordinating Committee 2015

College-level Service

Tennessee Tech

- Accreditation coordinator 2025-present

South Alabama

- College-level committees
 - Faculty Affairs Committee 2023-2025
 - Diversity, Equity, and Inclusion Committee 2020-2025
 - USA-LINK Scholarship Committee 2014-2025
 - Undergraduate Affairs committee 2017-2021
 - Promotion and Tenure committee 2017-2018
 - Excellence in Teaching Award committee 2015-2019
 - Academic Standards committee, Chair 2014-2018
 - Scholarship committee 2012-2020
- Search committees
 - Chemical Engineering department chair 2023-2024
 - College of Engineering assistant/associate professor of instruction 2023
 - Chemical engineering instructor, committee chair 2021
 - Professor of practice, committee chair 2021
 - College of Engineering dean 2019
 - College of Engineering instructor/assistant professor 2016
 - Chemical Engineering department chair 2016
 - Chemical Engineering visiting assistant professor 2016
 - Chemical Engineering assistant professor 2011, 2016
 - Systems Engineering program chair 2015
 - College of Engineering laboratory instructor 2015
 - Systems Engineering assistant/associate professor 2013, 2014
 - Electrical and Computer Engineering assistant/associate professors 2015, 2018

Departmental Service

Tennessee Tech

- ABET coordinator 2025-present

South Alabama

- Undergraduate Program Chair 2016-2025
- Promotion and Tenure Committee, Chair 2022
- Acting Department Chair (summers) 2015, 2016
- Summer advising – first years and transfers 2013-2016

Community Service and Outreach

- BASF Teens' Lab 2017, 2018,
2019, 2021,
2022
- Scouts BSA Merit Badge Jubilee coordinating committee 2019-2020
- Alabama Academy of Sciences Gorgas Scholarship reader/judge 2016, 2019,
2020, 2022
- Mobile County Elementary School Student Leadership
Conference presenter 2019
- Girls Enjoying Math and Science (GEMS) planning committee 2015-2017
- GEMS workshop presenter 2014, 2015,
2016
- Mobile County Public School System Science Fair judge 2014, 2015,
2017, 2018
- USA Wesley Foundation Board (Vice-Chair) 2012-2015

Educational Philosophy: Teaching as Mentorship and Scholarship

Only a few weeks into my first year of college, I knew that I wanted to be a professor. Perhaps the university classroom was the first public space where I felt a common identity and sense of belonging – I just fit there. And since one can't stay a college student forever, the only way to maintain a place in that environment is to become the instructor. Of course, it's different on the other side of the knowledge exchange, but the classroom remains a place of comfort, fulfillment, enjoyment, and inspiration for me.

A well-meaning academic mentor once told me that I would get bored teaching the same classes year after year. More recently, a curious relative asked me if it felt monotonous to teach the same material over and over. Both presumed that the emphasis of classroom teaching is just the content being taught. If that were indeed my focus, their points would be valid. However, my approach as an educator is that teaching is relational, part of an active exchange, and centered on the students learning the material rather than on the content alone. As the students are different each semester, so is my experience. Even beyond that, every semester is a new season for reflection that brings innovation to my instructional practices. With that perspective, teaching becomes a dynamic, ever-evolving experience that offers opportunity for growth and gratification. In short, I engage in teaching as mentorship for my students and as scholarship for me.

Teaching as mentorship has multiple aspects, including building relationships, encouraging active and reflective learning, and nurturing professional development. It requires flexibility and responsiveness, knowing the abilities and challenges of each student to tailor their learning experience and to make them comfortable engaging and communicating with me regardless of whether the learning is easy or difficult. A holistic view of each student as an individual with a life outside of the classroom that can affect learning is also key. Establishing trust makes possible the maintenance of high standards for professional behavior and academic performance without creating an adversarial imbalance.

That's the philosophical foundation, but how does it translate to my classroom? First of all, lecturing is minimal and interactive, and most of the time is spent in active problem-solving. The goal is to enable students to discover the weak points in their knowledge and skills while they are still in the classroom so that they can be addressed before they leave to complete homework assignments. I move about to observe their work and offer suggestions to facilitate next steps if they are stuck. I also gradually work the solutions on the board so that they can check their progress and ask questions to clear up any mistakes or misconceptions.

In material and energy balances, I use an online interactive textbook that has minimal text but requires student participation and enables me to hold them accountable for engaging the material before class. Because of that preparation, I can present less material and spend more time in an active learning environment. Changing to that textbook from the traditional one had a profound impact on success rates in the course, which in turn impacted my approach in other

classes, particularly chemical reactor design. Acknowledging that students were not likely to read a textbook chapter prior to a lesson, I composed two-page summaries of each lesson in a narrative style for students to read before class so that they would be prepared to engage more deeply in their classroom learning experience. This approach allows me to maintain high standards for student achievement while having realistic expectations about what students will do outside of the classroom to meet those standards. It is a practice that recognizes that the responsibility for learning is shared between the students and the instructor.

An essential part of that shared responsibility is teaching students to be reflective learners. While finding the correct value at the end of a problem solution is satisfying, it is not the point. Instead, knowing how and why the solution strategy worked is what matters, and perhaps even more important is know what did not work and why. A similar analysis can be applied to student learning strategies. If a student is learning at a lower level than they should, we meet and consider why. Maybe they are putting in sufficient time, but at the wrong time of day or location. It's possible that a different resource would be helpful for them, like watching videos or studying with another student. Helping students identify the best strategies is an individualized effort, but seeing them start to succeed is worth the expenditure.

Development of student professional behaviors and skills is built into my courses in a wide variety of ways. These include maintaining a current résumé, building familiarity with ethical codes, learning proper standards for formatting graphs, providing useful and evidence-based feedback to teammates after group assignments, joining professional societies, and learning to appreciate safe industrial practices. I regularly remind students that they are pursuing a professional degree and that as their instructor it is my responsibility to teach them professional standards and hold them accountable.

Teaching as scholarship entails application of the scientific method to teaching practice. It starts with being aware of and involved in the larger conversation surrounding modern educational concerns and approaches. Scholarly teaching requires intentionality in course and assignment design, so that the "experiments" can yield valid and generalizable information. Success or failure must be assessed based on student achievement and student feedback, which must in turn be reflectively evaluated for new ideas and innovations. Thus, the practice of teaching itself offers an opportunity to learn to teach better, to adapt to changing technology and changing student expectations, and to share new findings and approaches with colleagues who have common interests and objectives.

Teaching as mentorship and scholarship demands that a faculty member be willing to engage, relate, learn, reflect, adapt, grow, and share. One reward for that willingness is the gratification of relationships with students and with other teacher-scholars. Another is the satisfaction of contributing to one's profession not only by passing on its knowledge but also by improving the learning experiences of those who will direct its future.

Leveraging Administration, Leadership, and Teaching Roles for Educational Scholarship

As my leadership and administrative roles in recent years have required considerable attention and effort, my time available for technical research in chemical kinetics has decreased. Instead, I have leveraged the expertise and relationships I have developed in those other roles to shift my scholarly endeavors in related directions. While the research products of such work differ somewhat from traditional scientific journal articles, they still involve informed planning, careful observation and data collection, and reflective analysis to generate knowledge to disseminate to communities with shared interests. Here I will describe my recent and continued scholarly work along those lines.

NSF S-STEM: Supporting transfer student success

In 2019 at the University of South Alabama, I was awarded an NSF S-STEM Track 2 grant that focused on providing financial and academic support to low-income transfer students, primarily those from regional community colleges. Much S-STEM work is scholarship administration, mentorship, and academic supports, but at that time Track 2 projects also required a knowledge generation component. We focused on the impact of relationships and support mechanisms to the integration of engineering transfer students, asking their perceptions on what people and activities most affect that integration and on its importance to their academic and professional success. We also studied the transition in student identity from transfer student to engineering student. It has thus far yielded three presentations, with three papers in ASEE proceedings. We have shared our experiences on streamlining the transfer process and facilitating student success through open communication with community college faculty and by better advising before and after transfer. We have learned that our transfer students find their faculty advisors to be the people most influential on their success, with their classmates a close second. Other transfer students and students ahead of them in their programs appear to have a lesser impact. This is particularly interesting because so many programs are designed for cohorts of transfer students with near-peer leaders who are academically further along. Instead, our data indicate that promoting relationships with native students at the same point in their degree programs is critical to their integration and success.

Another interesting finding in that S-STEM project was the relative importance of integration of transfer students into the university culture versus the college of engineering community. This arose in a focus group where a first-year transfer student stated "We don't go to South, we go to Shelby." (South = the University of South Alabama and Shelby = Shelby Hall, which houses the College of Engineering) Based on this statement, we convened other focus groups of transfer students in second and third years in the college, as well as some alumni, to determine whether this perception persisted and if students found it detrimental to their success or satisfaction. In general, it did persist, and the few transfer students who did engage in university activities outside the College of Engineering did so with other engineering students. However, the students did not see any deficit to their engagement or success. If they

had sought the broader university experience, they might have started there instead of at the community college. Further, these transfer students were sharply focused on completing their degrees and securing jobs as engineers, and they often had family or work responsibilities beyond school. This result informs institutional efforts and expenditures toward orientation programs for transfer students – engineering transfers just want to be engaged by engineering colleges.

Observations while running that S-STEM program informed the subsequent work, first by increasing awareness of the needs of low-income students who started at the university. I also noted that most of the transfer students had started in precalculus at their community colleges and were earning engineering degrees at a much higher rate than students who started as first-years at the university in precalculus. With support from a planning grant through the S-STEM program, I led a group to design and propose a Track 3 S-STEM that will support students starting STEM degrees at the University of South Alabama or either of its two most prominent feeder community colleges. The focus of the new project is identifying and addressing factors that create the gap in success for students at universities pursuing math-intensive STEM degrees but initially placing in pre-calculus courses. Nationally, those students have a less than 20% chance of completing the desired degree program. They are more likely to come from high schools enrolling low-income populations. The questions being considered are what alterations or interventions are needed to increase the success rate of those students. Are more inclusive instructional methods needed, or is a change in messaging more expedient? Are they being rushed through those foundational courses with a heavy academic load in order to “catch up”? Is a more supportive five-year plan the answer? As the new S-STEM guidelines mandate up to five years of support, this question can be considered while relieving the financial burden on low-income students. The Track 3 grant was recently awarded. Because I was leaving the University of South Alabama, I had to cede the PI role to a colleague. While that award is institution-specific, it is my plan to continue work in the S-STEM arena, particularly building support structures to promote success in engineering degrees for low-income students whose mathematics backgrounds do not meet traditional expectations.

Research on Undergraduate Research: The mentor experience

My experience in the Office of Undergraduate Research has lent itself to scholarship as well. With a colleague from another institution, I developed and led a workshop based on my experience and observations and on best practices documented in the literature. This workshop was held at two conference and attended by new engineering faculty. It led to an invited paper published in the journal *Chemical Engineering Education*, and writing the paper raised other questions to explore.

While benefits to students who participate in undergraduate research are well-documented, there is currently little literature on faculty benefits and barriers, and we are seeking to fill that gap beginning with our discipline. We surveyed faculty perceptions and practices surrounding

undergraduate research in chemical engineering departments. We have learned that while most programs across the country do allow students to receive credit towards their degrees for undergraduate research, it is rare that the faculty mentors are recognized. The most strongly motivating factor for faculty is altruism – they know the benefits to the student participants. Undergraduate research mentorship is a time-intensive practice, especially in preparing the student to start the project. Much of that preparation could be done with by cohort with a single instructor, but few departments do so at the programmatic level, so instead it is one-on-one work by the faculty mentors.

In addition to the paper mentioned above, this work has yielded two conference presentations, one paper in ASEE proceedings and another to come. An invited paper has been submitted for the 60th anniversary volume of *Chemical Engineering Education*. In these papers and presentations, we make recommendations to departments on support mechanisms for faculty engaged in the high-impact work of undergraduate research mentorship, including department-level onboarding courses, recognition in promotion and tenure criteria, awards, and credit toward workload if desired.

Research on Undergraduate Research: Instilling career competencies

While running the summer undergraduate research fellowship program at South Alabama, I worked with the director of our Quality Enhancement Program to build student awareness of how their undergraduate research experience helped them develop the NACE career competencies. When students write about the research projects in their résumés, they typically focus on the technical skills they learned, such as particular analytical instruments or software. While interesting, these specific skills are not usually needed by their prospective employers. Through periodic assignments across summer program, we asked students to reflect on the NACE competencies and how their experience on their projects and in their research groups were building those strengths. Early in the experience, students largely expected that the skills developed would be technical or digital skills, but as they progressed they came to realize that other professional competencies were also developed. A workshop at the end of the summer focused on how to include those strengths in their résumés and job interviews. We are analyzing data on student perspectives that was collected through surveys and focus groups, and will submit a paper on our findings.

Opportunities for Collaboration in AIChE Education Division

The AIChE Education Division has also provided opportunities for collaborative scholarly activity. I spent several years on its curriculum survey committee, which each year on a ten-year cycle writes a survey to collect data on how a particular course or set of courses in the chemical engineering curriculum is taught and to track changes in our curricula. The surveys encompass course content, curricular considerations, and pedagogical methods. The data are analyzed and documented each year in the ASEE proceedings. During the pandemic shutdown, the EdDiv leadership supported our community by creating virtual communities of

practice (VCPs) to connect chemical engineering faculty with others teaching similar courses. The VCPs provided both useful pedagogical content that sustained our courses and fellowship that strengthened our community. When they concluded, we wrote a paper on our efforts, published in *Chemical Engineering Education*. The work was awarded AIChE's Gary Leach award and the Corcoran award from ASEE. For future endeavors, it has enabled me to build a network of potential collaborators among chemical engineering educators across the nation.

Research in the Classroom: Alternative Assessment Methods

Finally, my classroom itself is a place for innovation and experimentation, and with thoughtful planning and analysis can generate knowledge to disseminate to the chemical engineering educational community. Topics can range from example projects, such as a project on aluminum recycling I published several years ago, to alternative assessments, a current focus. A few semesters ago, I incorporated "ungrading" practices in my sophomore material and energy balances courses in two subsequent semesters. The first was a tremendous success in which students engaged more deeply in the learning process and took significant responsibility for it. The next semester, where the students were "off-sequence" due to personal circumstances or having started in precalculus, the level of responsibility required was overwhelming for some of them. I have presented on this work, and have collected data through surveys and interviews to publish it. It demonstrates the how pedagogical practices that are considered inclusive must still be critiqued based on the particular needs of the students we seek to include.

Following that work, I have shifted my assessment in the material balances course here at TN Tech to a standards-based approach with multiple opportunities to demonstrate mastery of course objectives. Final grade assignments will also consider how students have achieved standards of professionalism (e.g. attendance and timely submissions). I am fine-tuning my methods this semester and applying for IRB approval to conduct a study on student success and perspectives using that approach.

In summary, I have embraced opportunities for scholarly impact through service and leadership aligned with my skills, passions, interests, and experience. While I have followed a less conventional path through academia, this work has been meaningful to me and has provided me with knowledge, skills, and connections that should be valuable to our college. I am eager to engage with colleagues at Tennessee Tech to apply my areas of expertise to promote both student success and faculty productivity, and I anticipate finding new avenues for study as I learn more about the needs of our students and programs.

Tennessee Tech University

Board of Trustees



FACULTY TENURE CERTIFICATION STATEMENT

Ten faculty members are hereby recommended for tenure beginning August 2026.

If these recommendations are approved, the percentage of tenured faculty members at Tennessee Tech University in Fall 2026 will be 53%, which includes new tenure-track positions anticipated for 2026-2027.

Below is a table showing the percentage of faculty members at Tennessee Tech University holding tenure for each of the past five years and the projected percentage for Fall 2026.

Year	Proportion of Full-Time Faculty Holding Tenure
2021	59%
2022	59%
2023	54%
2024	55%
2025	54%
2026	53%

Across all university types, the national average proportion of full-time faculty holding tenure is **45.4%**. Across all universities with Carnegie Classification of “R2: Doctoral University”, the national average proportion of full-time faculty holding tenure is **45.4%.***

* Source: IPEDS Human Resources survey component 2024-25 **provisional release**. Last Updated by AAUP on January 13, 2026

DATE: May 11, 2026

Tennessee Tech University
Board of Trustees

ADDITIONAL FACULTY TENURE RECOMMENDATION FOR 2026-2027.

	Name	Department/School	College	Current Rank
1	Van Neste, Charles	Electrical and Computer Engineering	Engineering	Associate Professor