Middle Tennessee State University Actuarial Science Program Newsletter (Fall 2024)

Presented by the Actuarial Mathematics Student Association (AMSA)

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Faculty

Dr. Don Hong Dr. Abdul Khaliq Dr. Vajira Manathunga Dr. Lu Xiong, ASA







Letter from Program Director

At my 19th anniversary working at MTSU, I'm thrilled to celebrate some major milestones for the Actuarial Science program. Recently, our program was honored with two prestigious recognitions: we became one of only 15 programs worldwide to receive Gold-Level recognition from the Casualty Actuarial Society in November 2023, and we were also named one of just 42 Centers of Actuarial Excellence (CAEs) by the Society of Actuaries in June 2024. In addition, this past July, we proudly hosted the 59th Actuarial Research Conference (ARC2024) on the MTSU campus. This event's success was made possible by the dedication and hard work of many individuals. I would like to extend my heartfelt gratitude to Drs. Vajira Manathunga, Lu Xiong, and Qiang Wu, as well as our exceptional student volunteers from the Actuarial Math Student Association (AMSA). Special thanks go to Dr. Chris Stephens, Chair of the Department of Mathematical Sciences, and Dr. Greg Van Patten, Dean of the College of Basic & Applied Sciences. I am especially grateful for the invaluable contributions of Martha Damron and Carmen Bucka from the Math Office. Their efforts were instrumental in making this event a resounding success.

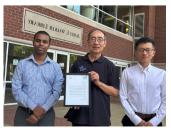
These achievements are a testament to the long-standing commitment and hard work of our faculty, students, alumni, colleagues, administrators, and industry partners. I want to take a moment to sincerely congratulate and thank each of you for your tireless dedication and unwavering support in reaching these significant milestones. These global recognitions will undoubtedly help the MTSU Actuarial Science program continue to grow and produce highly qualified actuarial professionals.

As we approach the close of the semester and the holiday season, I wish you all a joyful and restful holiday season! Sincerely, Don Hong

Program Facts

- 1987: The MTSU Actuarial Science program was founded by Dr. J.C. Hankins.
- 2005: The Actuarial Math Student Association (AMSA) was established, providing students with industry connections through regular professional speakers and events.
- 2010: MTSU launched the MS degree in Professional Sciences (MSPS) with a concentration in actuarial science, expanding its graduate offerings.
- 2015: The stand-alone BS degree in Actuarial Science was introduced, building on the success of the concentration in the BS in Mathematics program.
- 2020: MTSU Actuarial Science received the University Award from the Casualty Actuarial Society (CAS).
- 2023: The program was awarded a Gold Level Recognition by the CAS, making it one of only 12 U.S. schools with this distinction.
- 2024: The MTSU Actuarial Science Program received the prestigious Center of Actuarial Excellence (CAE) designation from the Society of Actuaries (SOA).
- MTSU proudly hosted the 59th Annual Actuarial Research Conference, bringing together researchers and professionals globally.





Over 50 MTSU alumni have achieved ASA/ACAS or FSA/FCAS designations, highlighting the program's dedication to preparing students for actuarial success.

Program News

In the left photo below, three distinguished visitors from the Society of Actuaries (SOA) board, Alex Young (L1), Tiffany Tatsumi (L2), and Dr. Chris Groendyke responsible for evaluating MTSU's CAE designation, pose with the university's iconic lucky horseshoe—a symbol of tradition and good fortune. To the right, these same guests are joined by MTSU's Dr. Lu Xiong and Dr. Vajira Manathunga in front of the historic Kirksey Old Main Building, the long-standing home of the Math Department and birthplace of the actuarial science program. Their visit highlights a pivotal moment in the program's history, reflecting decades of growth and achievement of the program at MTSU.





■ 19 students graduated in actuarial science program with a BS degree in Actuarial Science and 5 students with an MS degree in Actuarial Studies from December 2023 to August 2024. In the left picture below, some graduates in the spring 2024 pictured in the front of KOM building. In the right picture below, Jiyao Luo (R1) and Aocheng Wang (L1) pictured with their supervisors Drs. Don Hong (L2) and Lu Xiong (L3) right after completing their internship presentation in August 2024.





- Congratulations to Drs. Vajira Manathunga and Lu Xiong for taking a new role as Associate Director for Undergraduate Programs and Graduate Programs in Actuarial Science studies, respectively as well.
- Congratulations to Jiyao Luo for passing actuarial exam ALTAM in Spring 2024. Jiyao joined the Geogia State University for his Ph.D. studies in Actuarial Science and Risk Management in Fall 2024 right after his graduation from MTSU MSPS program in actuarial science.
- Congratulations to Pengyu Qian who passed FAM exam from the SOA in the summer of 2024.
- Congratulations to Skylar Hallingstad for passing Exam-P in Spring 2024. Skylar will be the President of the Actuarial Math Student Association starting the spring semester of 2025.
- Congratulations to Jennifer Rody who will join SIGMA actuarial consulting as Actuarial Analyst after she graduate with a degree of BS in actuarial science in December 2024. Jennifer is current president of the Actuarial Math Student Association. She has been an intern at SIGMA since May 2024.



Actuarial Science

AMSA MEETINGS

• In the left photo below, students gather with Dr. Don Hong at the AMSA Open House, celebrating camaraderie and excitement. To the right, students enjoy pizza and games, sponsored by The Infinite Actuary, bringing energy to an event that strengthens connections in MTSU's actuarial community.





• On October 17th, Andrew Trenchard, ASA, and Jonathan Faulks, Actuarial Analyst from Gallagher, visited to discuss exam strategies and internships, offering guidance to help students grow.





• In the left photo below, MTSU alumnus Alex Craig (L4), ASA, from Blue Cross Blue Shield, engages with students on October 18th, discussing actuarial roles and internship paths. Pictured below on right with AMSA members is Richard Moncher, FCAS, VP of CAS Administration, presenting virtually on AI trends and predictive analytics' growing role in actuarial work.





• In the photo below on left, AMSA welcomed Sydney McIndoo, FCAS, MAAA, a consulting actuary with Cedarstone Actuarial, who shared insights on career paths and gave resume and interview tips. In the pictured below on right with Martin Chair of Insurance Dr. Dave Wood, Actuarial Science Director Dr. Don Hong, and Risk Management, Insurance, and Actuarial students, are consulting actuaries Michelle Bradley, Jason Luckett, and Actuarial Analyst Emma Ward from SIGMA Actuarial Consulting Group discussing captives, cyber risks, and emerging careers in the industry.





AY 2024-2025 AMSA OFFICERS

• President: Jennifer Rody; Vice President of Graduate Affairs: Clifford Jones; Vice President of Undergraduate Affairs: Skylar Hallingstad; Vice President of International Affairs: Cyrus Xi; Treasurer: Wendi Chen; Secretary: Bo Chen.

News from Alumni

Congratulations to MTSU actuarial alumni who have achieved ASA/ACAS, CERA, or FSA/FCAS designations recently in 2023-2024: Curtis Barker (MSPS, 2019), ASA; Brent Carpenetti (BS 2011, MSPS 2017), FSA; Wenqi Chen (BS 2017), FSA; Ryan Clark (BS 2018), FSA; Nathan Cohee (MS 2015), FSA; Courtney DeClerk (MSPS 2019), ASA; Ruoqing Fang (BS 2018), ASA; Adam French (MSPS 2015), ACAS; Jason Luckett (BS 2016), ACAS; David Phillips (MSPS 2015), ASA; Jack Pipa (BS 2007), FCAS; Haocheng Wu (BS 2017), FSA; Xiufeng Yin (BS 2009), FSA.

Faculty News

- Congratulations to Drs. Vajira Manathunga and Lu Xiong for their promotion to Associate Professor with tenure effective on August 1, 2024. They both take a new role as Associate Director for Undergraduate Programs and Graduate Programs in Actuarial Science studies, respectively as well.
- Drs. Don Hong and Vajira Manathunga received MT-IGO grant to support their research project on Actuarial Modeling for Loss Prediction using textual data information.
- Dr. Vajira Manathunga received a SEED grant from the Data Science Program for his research project on InsurBERT.
- Dr. Lu Xiong, ASA, is serving in the SOA Education and Research Section as a council member currently in 2024.
- The paper entitled "Framework for BERT Based NLP Models with Applications to Warranty Policy Loss Prediction" by Shuzhe Xu, Vajira Manathunga, and Don Hong, published in Variance, the CAS research journal, in November 2023 received the top hit article among papers published in FY24 so far, announced by Annmarie Geddes Baribeau, Research Manager of the Casualty Actuarial Society, at the Actuarial Research Conference in July 2024. Dr. Shuzhe Xu, received his Ph.D. degree in Computational & Data Science program under supervision of Dr. Don Hong and Sal Barbosa in December 2021.





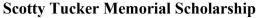
- Program Director, Dr. Don Hong, recently completed a half marathon at Nashville, sharing the experience with his daughter, Jennifer, and son, Daniel. His dedication to both personal wellness and professional excellence is inspiring to us all.
- Dr. Vajira Manathunga successfully passed the FAP final assessment exam toward the ASA designation of the Society of Actuaries in Fall 2024.

2024 Actuarial Science Scholarship Recipients



Scholarship for Actuarial Excellence

Skylar Hallingstad was transferred from ETSU to the MTSU Actuarial Science program in Spring 2023. He has GPA 4.0 and passed the Exam-P from the Society of Actuaries in July 2024. Skylar will be the President of the Actuarial Math Student Association starting in the Spring 2025.





Jennifer Rody returned to MTSU after a 20-year break, earning a 3.55 GPA in the Actuarial Science program. As President of the Actuarial Math Student Association, she fosters collaboration and supports her peers. She works part-time at SIGMA Actuarial Consulting Group and has accepted a full-time position there after graduation. With a background in hospitality, Jennifer combines analytical skills with a passion for service and connecting people.



B.L. Hong Memorial Scholarship in Actuarial Science

Jiyao Luo joined MTSU Actuarial Science program in the fall semester of 2022 as a 3+1+1 student from Guangxi University, China. During his studies at MTSU, he has successfully passed 6 actuarial professional exams (P, FM, IFM, SRM, FAM, and ALTAM) and is expected to graduate with an MS degree in August 2024. Following his graduation, he will join the Ph.D. program in Risk Management & Insurance at Georgia State University in the fall semester of 2024.

ACTUARIAL STUDENT FOUNDATION

- The Actuarial Student Foundation was created to support actuarial students in their actuarial career development. We appreciate the individuals and companies who have contributed to this foundation. If you are interested in supporting, please make checks or money orders payable to MTSU Actuarial Student Foundation (#92935) and mail it to: Program of Actuarial Science, MTSU P.O. Box 34, 1301 E. Main St., Murfreesboro, TN 37132, USA. A tax-deductible statement for the contribution will be provided from MTSU Foundations Office. Please also check with your company about matching contributions. If you are interested in setting up a scholarship for actuarial students at MTSU bearing a person's or a company's name, please contact Dr. Don Hong, don.hong@mtsu.edu.
- Online gifts may be made at www.mtsu.edu/give. When on this page, please choose "other" in the dropdown menu, then type "Actuarial Student Fund (#92935)" in the next space/textbox.

Interview with Alumni



Jason Luckett, ACAS, MAAA is a talented consulting actuary with SIGMA Actuarial Consulting Group, Inc. Recently recognized as part of Captive International's 2024 Forty Under Forty potential future leaders in the captive insurance industry, Jason has quickly distinguished himself in the field. A Middle Tennessee State University alumnus, he graduated summa cum laude in 2016 with a Bachelor of Science degree, specializing in Actuarial Science and minoring in Risk Management and Insurance. AMSA extends its congratulations to Jason on achieving his ACAS and MAAA

designations. During his time at MTSU, he was an active member of the Actuarial Mathematics Student Association (AMSA), known for his strong work ethic and engaging personality. We had the pleasure of speaking with Jason to learn more about his journey from MTSU student to consulting actuary, his advice for current students, and his perspective on the evolving actuarial profession. —Jennifer Rody

Jason Luckett, ACAS, MAAA Interview with Actuarial Math Student Association (AMSA)

AMSA: Can you tell us about your journey to becoming a consulting actuary? How did your time at MTSU help prepare you for your actuarial career?

JL: My path to becoming a consulting actuary has required a lot of personal and professional development. I started my exam journey in my junior year at MTSU and took exam P after completing a course focused on that material. I knew the exam process was something that took candidate's years to complete, but I did not imagine that it would take me 9 years to achieve my ACAS (Associate of the Casualty Actuarial Society). I found taking exams while being a full-time employee harder than I had expected and I think it required some personal

maturation to start seeing success with the exams while working full time. While I struggled through my exams, I believe I developed as a professional and ultimately, I believe my professional development and exam progress started to align. Having achieved my Associate credential after many years activity working has left me feeling like a qualified and well-prepared actuary. Some candidates may find themselves achieving an Associate designation quicker than I have while others may take longer or may choose to embark on an actuarial career without pursuing exams. Either of those paths are both viable options towards achieving a successful actuarial career and the path you take is not one size fits all. I would encourage students to have short, medium, and long-term plans in relation to their careers and exam progress, but I would also advise them to not lose their confidence if the exams or career progress do not go as planned.

Being a member of the AMSA and the GIS (Gamma Iota Sigma) insurance fraternity while at MTSU put me in a position to achieve success while I was in school and to have the opportunity to find employment in my field of choice. The actuarial and insurance/risk management departments at MTSU are special and put a lot of extra time into ensuring that not only are the students learning the right things in the classroom, but also that they are getting in front of the right people in order to start successful careers.

AMSA: Were there any specific professors or faculty members at MTSU who made a significant impact on you? If so, could you share how they influenced your path?

JL: I had quite a few influential professors while at MTSU. From the actuarial department Dr. Lu Xiong, Dr. Abdul Khaliq, and Dr. Qiang Wu each had a significant impact on my experience in taking actuarial exams while in school and early in my career. Dr. Lu helped me pass my first actuarial exam (Exam P). Dr. Khaliq helped me pass my second actuarial exam (Exam FM) and helped me see some real-world applications of the material including some trade strategy utilized in one of the James Bond movies. Dr. Wu helped me prep for my third exam (Exam MFE) and his class was the only one in my college career that I didn't make a grade of A in (this was helpful as it made realize how difficult some of higher-level exam material can be).

As the head of MTSU's actuarial department, Dr. Don Hong not only taught some of my courses that were required as CAS VEE (Casualty Actuarial Society Validation by Educational Experience) courses, but he also helped me see the big picture of how all the various classes and exams I was completing would come together to assist me in my path towards receiving my credentials and obtaining a job. Dr. Hong encouraged me to actively participate in the actuarial community by attending a CASE (Casualty Actuaries of the South-East) meeting in Atlanta, taking exams, and attending career fairs and speaker sessions. Dr. Hong was one of my primary mentors throughout my college career and I am extremely grateful for the time and effort he put into supporting me.

I also have to mention the former MTSU Martin Chair of Insurance head Dr. Kenneth Hollman. Dr. Hollman taught me one of my early insurance courses at MTSU and encouraged me to complete a minor in insurance as well as join the GIS insurance fraternity. I was able to attend several speakers and events through being a part of GIS including multiple career fairs at which I met my future employers at SIGMA.

AMSA: What do you enjoy most about your work as a consulting actuary? Are there aspects of your role that you find especially rewarding or challenging?

JL: My favorite part about working as a consulting actuary is how engaging the work can be. As a consultant, on any given day, I may work on several different risks (different lines of insurance coverage) from companies each in different fields of business. One project may involve detailed discussion on how to utilize the results of an analysis, while another may involve brainstorming on how to perform an analysis when there is a lack of data. In some roles as an actuary, you may repeat the same types of analyses over and over (and we certainly do repeat business for our clients at SIGMA) but as a consulting actuary I find that there are always new and unique opportunities throughout the year that give me a chance to try something a little different than what I have done recently.

AMSA: Reflecting on your time as a member of AMSA, do you have any favorite memories or experiences that stand out?

JL: I would encourage members of the AMSA to participate in the actuarial and insurance community at large by attending meetings or sessions hosted by various organizations. I attended a CASE event in Atlanta while I

was in college. Not only did I get the experience of engaging with professionals in a business setting, but I also got to take a road trip and make memories with some of my classmates.

Additionally, for some of the students who may be actively studying and taking actuarial exams, I would encourage you to celebrate with each other after completing an exam. Whether every one of you achieves the result on the exam that you are hoping for or not, I think it is valuable to take the time to have dinner together and applaud the efforts that you have each made. If you don't take the time to step back and reflect on the hard work you are each putting in, you may have a hard time finding the drive to continue pushing on with the exams

AMSA: The actuarial industry is evolving rapidly. How do you see it changing, and what skills do you believe will be important for students to focus on as they prepare to enter the field?

JL: I've been told that often the most successful actuaries are the ones who can merge the high-level technical skills with the ability to find and communicate solutions in ways that are easily understood. I think communication is an underrated skill within the actuarial world. As machine learning and artificial intelligence continue to evolve, I think the value of an actuary with strong communications skills may exceed that of one with strong technical skills.

AMSA: Were there any classes at MTSU that you felt were particularly helpful for your career as a consulting actuary? Are there courses or topics you would recommend that current students prioritize?

JL: Touching back on my comments on the last question, I would encourage actuarial students to take some type of speech and/or communications class if able. I think being able to communicate in a professional manner is equally as important to a successful actuarial career as taking exams. Of course, I would also suggest that students make sure they take any courses that could provide them credit for the CAS VEEs.



Actuarial Science

Thanks for Giving

We are grateful to the following sponsors for supporting the MTSU Actuarial Science Program's successfully organization of the 59th Actuarial Research Conference held on MTSU campus in July 18-20, 2024.



American Academy of Actuaries













