2024 Edition

Risky Business Newsletter

The University of Texas at Austin Actuarial Science

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INSIDE THIS ISSUE

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Balancing Risk and Resilience: The Role of Reinsurance in a World of Intensifying Catastrophes

Michal Gabrick

In the wake of hurricanes Helene and Milton, the property and casualty insurance industry faces significant financial strain. However, such costly disasters are not unprecedented—Hurricane Katrina had estimated insured losses of $102 billion, and more recently, Hurricane Ian incurred losses of $56 billion, both adjusted to 2023 dollars. These massive natural catastrophes highlight a growing issue: immense losses are battering insurers as the frequency and severity of natural disasters continue to climb. With each new event, insurers are required to absorb staggering payouts, straining their balance sheets and driving up premium costs for consumers. Such an escalating challenge underscores the critical role of reinsurance as a financial safeguard, providing essential backup to help insurers manage these catastrophic risks.

Insurers generally aim to hold a portfolio of uncorrelated risks, as independent claims help to minimize the overall variance of losses and reduce the likelihood of large, simultaneous payouts. In such diversified portfolios, individual claims tend to offset each other, since when claims are uncorrelated, a loss event affecting one policyholder or risk is not likely to impact others simultaneously. Overall, large portfolios of independent policies stabilize the insurer's financial position. However, catastrophe risks, such as hurricanes and earthquakes, are inherently systematic. They impact large numbers of policyholders within a geographic area simultaneously, making them exceptionally challenging to diversify. This lack of diversification increases the financial vulnerability of insurers to large-scale events, as there is an increased likelihood of incurring numerous claims at once. Moreover, local insurers are particularly vulnerable to systematic risks, as their policies are often concentrated within specific geographic regions, leading to overexposure to certain types of perils. For instance, insurers operating in California face high exposure to wildfire risk, making it challenging to diversify against large-scale, area-wide events. This is where national and global reinsurers are uniquely positioned to step in and assume a portfolio of catastrophe risks that are diversified across geographic location and peril type. Reinsurance is generally divided into two main types: proportional and non-proportional treaties. In a proportional treaty, the insurer and reinsurer share both the premiums and the risks in direct proportion. In contrast, a non-proportional treaty generally operates through an excess loss arrangement, where the reinsurer steps in only after aggregate losses exceed a predetermined threshold. This latter reinsurance structure is especially valuable for property and casualty insurers, who face the risk of substantial financial exposure from tail-end events like the aforementioned catastrophe risks.

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The Florida homeowners' insurance market serves as a compelling case study in the strategic use of excess reinsurance. Generally, insurers aim to maintain sufficient cash reserves to cover the claims they anticipate within a given year, balancing risk with their capacity to pay out claims independently. However, Florida's exposure to increasingly frequent and severe hurricanes poses an immense financial challenge to local insurers. Due to the unpredictable and high-cost nature of these catastrophic events, many insurers in Florida opt to keep lower reserves, instead relying heavily on stop-loss reinsurance agreements. This reliance on reinsurance helps insurers in Florida continue offering coverage in a volatile market without risking their solvency from a single, massive storm event. However, reinsurance arrangements come with significant costs for primary insurers. With each disaster that triggers large payouts, reinsurers face mounting financial exposure, prompting them to increase renewal rates to protect their own financial stability. This upward trend in reinsurance costs puts local insurers in a difficult position, as they must find ways to manage these escalating expenses without compromising their own financial health. For many insurers, the primary method of addressing these rising costs is to increase premiums for policyholders, effectively transferring part of the burden to consumers. As premiums climb, however, insurance coverage can become unaffordable for many households, leading to a rise in underinsured or uninsured properties, particularly in high-risk areas. Some insurers, facing unmanageable reinsurance costs and pressured to protect their own balance sheets, may ultimately decide to reduce coverage offerings or withdraw from certain high-risk markets altogether. This trend has far-reaching implications: when insurers pull back from these regions, residents may be left with fewer options for protection against natural disasters, potentially destabilizing local economies and communities. In the long term, these dynamics could lead to a landscape where only the wealthiest property owners can afford adequate insurance, leaving many vulnerable to financial ruin in the event of a disaster.

Reinsurance plays an indispensable role in supporting the property and casualty insurance industry, particularly as catastrophic risks grow in both frequency and intensity. By stepping in where direct diversification is limited, reinsurance not only sustains the financial health of insurers but also ensures that communities can rebuild in the wake of devastating events. However, as reinsurance costs rise, insurers are increasingly forced to pass these expenses onto policyholders, raising premiums and potentially limiting affordable coverage. This trend highlights a challenging balance between maintaining insurer solvency and protecting policyholder access to necessary coverage, a balance that will be critical to maintain looking forward. The continued evolution of reinsurance is essential—not just as a response to rising risks but as a proactive strategy for a world increasingly shaped by extreme and unpredictable forces.

The Rising Question of Insurance on Autonomous Self-Driving Vehicles

Miranda Hickey

The rise of artificial intelligence and its seemingly endless applications have already changed numerous aspects of our everyday lives. Some common examples include facial recognition software, specifically tailored social media experiences, personalized marketing and advertisements, and more recently, self-driving or autonomous vehicles. With companies such as Tesla, Mobileye, and Waymo putting major efforts into the research and testing of autonomous cars, it is not a matter of if, but when autonomous driving becomes a factor in providing auto insurance. For the auto insurance industry, whose premiums are currently based on the risk of accidents, this raises many questions: if the risk is significantly reduced, will premiums go up or down? And if an accident does occur, who is at fault? While many of these questions remain unanswered, some solutions are being proposed as the auto industry moves to implement AI into more of their projects.

The Society of Automotive Engineers (SAE) has set six tiers of autonomous driving vehicles. Beginning at zero are vehicles that have no autonomous driving technology, and are entirely operated by humans. These make up the majority of cars on the road today. The highest level, level five vehicles, are fully autonomous and require no human interaction to operate beyond the input of a destination. There are no level-five cars on the road, and it is predicted that there will not be any for another decade; however, the technology is currently being developed. There are some forms of level one and two vehicles with features such as automatic brakes, self-correcting steering, and adaptive cruise control. Level four vehicles require no human interaction. They are programmed to shut down automatically upon any system failure and are limited to certain geographical locations. The only examples of level four vehicles in today's society include rideshare services through companies like Waymo, shuttles, and other forms of public transportation.

As far as providing insurance for these vehicles and what it might look like in the future, we can look at what is already happening at Waymo. Waymo is a company that develops autonomous driving technology and ride-hailing services with autonomous vehicles. According to the head of risk and insurance at Waymo, Tilia Gode, insurance for self-driving vehicles differs little from that of human-driven cars. She relates Waymo's insurance for their level four cars to a policy called fleet insurance, where a company's entire fleet of vehicles is covered rather than just one, typically held by a taxi cab company. "Just like any commercial entity, we have insurance coverage in place that covers the Waymo driver over the course of the driving task, … Essentially, there's a shift from human being drivers to the autonomous system being the driver — Waymo is the driver." Many insurance companies are partnering with tech firms to better understand

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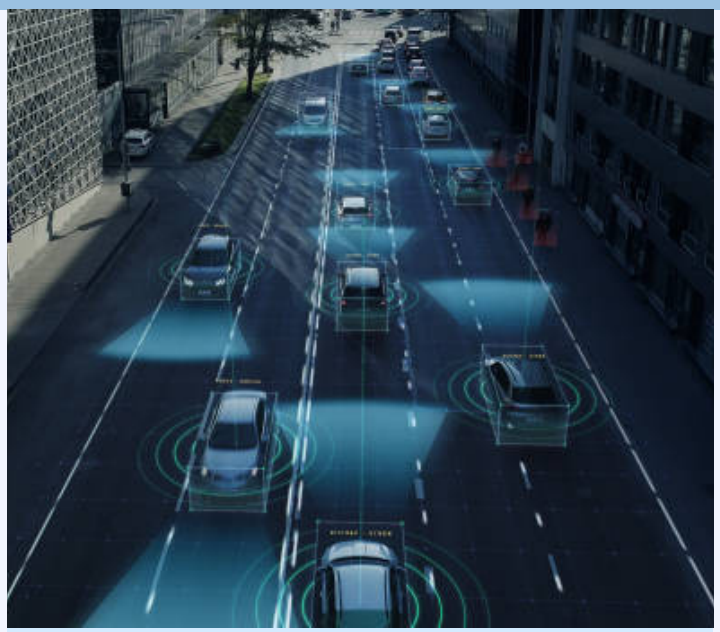
the technology behind autonomous driving vehicles and their risks.

Autonomous vehicles can be a good thing for insurance companies in some cases, such as fraudulent claims and increasing profitability. Traditionally, the vast majority of accidents are caused by human error, whether it be drowsiness, alcohol, speeding, or distraction. These causes become virtually irrelevant in autonomous vehicles, resulting in significantly fewer accidents. Additionally, the cameras and surveillance equipment on these vehicles can use data collection and AI to detect fraudulent activity, which will reduce losses for insurance companies from fraudulent claims. AI also allows driverless cars to be more aware of their surroundings and local road regulations, resulting in fewer liability claims. These applications can help keep premiums low for typically non-law-abiding drivers by removing the option for anything otherwise. The more AI driven vehicles are implemented into society, the higher reduced risk of accidents across the board. For insurance companies, this means fewer claims being made and, in turn, lower rates being offered to consumers.

In summary, the auto insurance industry will have to evolve to adjust to progress happening in autonomous driving. AI promises a future of reduced accident frequency, combating fraud, and potentially lower premiums, especially for higher-risk drivers. However, challenges like determining fault in vehicle accidents and adapting traditional insurance models to where the “driver” may be an AI system instead of a human remain.



“Just like any commercial entity, we have insurance coverage in place that covers the Waymo driver over the course of the driving task, … Essentially, there’s a shift from human being drivers to the autonomous system being the driver — Waymo is the driver.”

Tilia Gode, Head of Risk and Insurance at Waymo

In the Spotlight: The Winning Team of the Global Insurance Symposium

Ryanne Goodwin

I had the pleasure of sitting down with the first place team from the Global Insurance Symposium of the Spring of 2024. Naomi Struble (Class of 2027, Actuarial Science and Statistics & Data Science major), Sophia Fente-Damers (Class of 2026, Mathematics major), Holland Mundorff (Class of 2026, Mathematics major), and Logan Gier (Class of 2025, Actuarial Science major) participated in this competition, comprised of a preliminary video recording and then the final presentation in Des Moines, Iowa with the top 3 teams.

Q: Tell us a little bit about the event and your presentation specifically.

Sophia: "It was a risk management competition for the Global Insurance Symposium where the case was to outline major risks in an insurance field. We chose the health insurance field and we each outlined a certain risk."

Naomi: "We figured if anything, we were going to have fun with it and be a little creative and different, because we figured that the insurance field in itself tends to not be that exciting. For the video round, we were dressed up and had poker chips and ended with 'Are you all in?'"

Q. What set you apart from your fellow competitors that helped you secure first place?

Holland: "I think it was because people found us interesting because we had jokes and were more engaging with the audience than the other teams. We also chose a topic that people wanted to hear about. We felt like we understood our audience might be a bit bored with the AI subject and we targeted someone more interesting."

Naomi: "At some points in the presentation we would talk directly to the audience and ask them to participate and connecting with the audience really helped us. Also, everyone else in the competition were seniors, so I think people were impressed that we were a younger team with freshmen, sophomores, and juniors."

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Q: What challenges did you face in preparation for the final round? How were you able to overcome them?

Logan: "We did have an issue of having too much information between the video and in-person presentation. We had to cut some things out of our presentations, specifically some of Naomi and Holland's parts."

Sophia: "Any weaknesses we did have, it was honestly all fixed by Professor Walch. When we did our practice with her, she went through every single one of us and picked us apart in the best way. Professor Walch took two and a half hours out of her evening to sit in a room and give us feedback on our presentation. This experience helped me realize that the professors at UT, and specifically the Math department, genuinely want to help us. It's really nice knowing that you can go to any of these professors and say 'I need help,' and they will give you the time you need."

Logan: "The processors at UT, like Walch and Harper, I feel like you could really go to them for anything. It's really beneficial to be able to have that outsider perspective from someone who's been in the industry and just tell us how to better our presentation."

Q. How were you able to use this experience after it was completed?

Sophia: "One thing I found very beneficial and different, compared to the UT specific Actuarial Case Competitions, was that there was no data presented in the broad topic question, so we had to rely on our presentation skills to convince the audience. If you can deliver a convincing presentation and story, people are going to believe you."

Holland: "I've talked about this in every interview I've had! I feel like it shows our ability to take a broad subject matter and narrow it down to present it in front of so many people. Presentation skills are really important for a lot of jobs."

Q. Any tips/advice for people interested in actuarial science, big presentations, etc.

Sophia: "You really can find interesting things in anything! Again, AI was brought up so many times in the entire conference, it was really cool that we were able to have a unique and different idea."

Naomi: "It's also really important to put yourself out there. We got so many networking opportunities, business cards, and LinkedIn connections. If you put yourself out there, it will go a long way!"

Mercer Fall 2023 Case Competition

We extend our deepest gratitude to Mercer for sponsoring the University of Texas at Austin's Fall 2023 Case Competition on healthcare consulting. We also thank the volunteer judges, student committee, Professor Alisa Walch, and Dr. Shinko Harper for their crucial roles in making this compeition a success. Case competitions are one of the best ways for students to develop their professional skills and gain exposure into the actuarial science field. Each semester, UT Austin holds a case competition, providing aspiring actuaries and data scientists valuable opportunities to step into the actuarial world and have the opportunity to develop and apply analytical, technical, oral communication, problem-solving, and numerous other practical skills that will continue to support them in their future careers. This semester, students were challenged with identifying two healthcare disrupters that would significantly impact a self-insured energy company in the next five years by analyzing health and prescription claims data. This draws relevance from the substantial disruptions caused by COVID-19, which previously affected the company. Teams presented their findings and recommendations to a panel of judges, showcasing strong presentation and collaborative skills. Many students valued the focus on business decision-making in this case and gained valuable experiences.

Recognized for their outstanding presentations, here are the winners!

First Place Team
Tuan Nguyen, Julia Mergel, Diana Klein, Adam Doyle, Delmy Fox, Shayan Bhimani

Honorable Mentions (Team): Ryan Chen, Emily Lai, Julian Lucero, Rachel Nudelman, Yaning Zhu
Honorable Mentions (Individual): Yifan Jin, Nancy Hao, Ava David, Tiya Kaissen

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Second Place Team

Kai Williams, Austin Yeh, Aryl Clayton, Mattea Rodgers, Jawad Kazi (not picured)

To gain an inside perspective on the case competition, I had the opportunity to interview a member of the first place team, Tuan Nguyen, on his experience and strategy.

Interview with Tuan Nguyen

Q: Tell us about yourself!

Hello, my name is Tuan Nguyen, and I am currently a Junior at UT Austin. I am from Houston, and I'm an actuarial science student here at UT.

Q: How would you compare this experience with the previous case competitions you have participated in?

I wanted to try the case compeition again for the third time because, as people say, third time is the charm. Prior to this I did two other case competitions but didn't win anything. While I didn't win anything, I took note of what the winning team did differently from my team and tried to incorporate it into my presentation this third time around, and somehow it worked. I think it is not about how I can show that I can create some miracle on the spot with case compeitions by winning it on my first attempt, but rather learn and improve on what I didn't do so well previously.

Q: What challenges did you run into, and how did you overcome them?

My team actually did not have a lot of time to meet and did not come up with a concrete idea to work for the case until the Tuesday prior to the presentation, but that was okay. We honestly knew that we were busy right off the bat, and we spent the first week as well as multiple Q&A sessions to understand the case thoroughly before tackling it with our ideas. I think there is a lot of information to digest when you are starting a case, but taking it slow and coordinating with your team really helped our team specifically.

Q: What advice would you give for future competitors and those interested in actuarial field?

The case competition is not about winning, but more about learning. It took me three case competitions to finally win something, but it was not solely because I got lucky teammates. I learned from each and every case competition. From what I did well, I can keep up those performances. From what I didn't do so well, I searched for alternatives that are better or follow what other teams did well. At the end of the day, I became a better presenter as well as being able to navigate the world of an actuary much better than I was starting out thanks to these experiences! So when you are doing case competitions, it is okay to lose, it is much more important that you think about what you can take away from these experiences.

Q: What are some skills that you gained from this case competition?

Definitely time management and coordinating with teammates is up there on the list of helpful skills, but another one is just to learn from your mistakes. I know I am repeating this, but these reflections, in my opinion, are invaluable experiences for you no matter what stage of life you are in.

CAS Spring 2024 Case Competition

We are sincerely grateful to the Casualty Actuarial Society for sponsoring our Spring 2024 Case Competition. Thank you to the volunteer judges, student committee, Professor Alisa Walch, and Dr. Shinko Harper for each of their essential roles in making this competition a success. Students from the University of Texas at Austin, Texas A&M University, St. Mary's University, and Concordia University came together in teams to analyze a case in workers compensation reserving. Students were tasked in estimating the total ultimate liabilities and reserve amount for an insurance company, given data on medical and indemnity payments over thirteen policy years. For many participants, this was their first experience working with actuarial reserving data and loss development triangles. They familiarized themselves with actuarial terms and concepts, gaining the necessary understanding on the subject matter to analyze loss triangles effectively. Teams evaluated various loss development methods and the frequency-severity method to develop strategies for analyzing the development of both medical and indemnity losses while accounting for a catastrophic event that caused flucations in the data. Each team devised creative and comprehensive solutions for estimating the comapny's total ultimate reserve and presented their findings to a panel of judges acting as the company's executives.

Recognized for their outstanding presentations, here are the winners!

First Place Team

Charlie Zhang, Logan Gier, Vicente Mainez, Keily Hart (STM), Phoenix Mitchell

Honorable Mentions (Individual): Riley Luce, Rifa Momin, Ned Van Niman, Sergio Trevino, Michal Gabrick

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Second Place Team

Justin DeLaCruz, Shirley Lee, Drake Bratos, Meng Lyu, Priscilla Cheng (not picured)

Additionally, I had the opportunity to interview Justin Delacruz, a first-time competitor and member of the second-place winning team. He shared his valuable experiences and insights from the competition.

Interview with Justin De La Cruz

Q: Please give a brief introduction about yourself.

I'm Justin De La Cruz, a Senior at the University of Texas at Austin. I'm pursuing a Bachelor of Science in Mathematics with a concentration in Actuarial Science and a Bachelor of Arts in Plan II Honors. I passed the P and FM exams last summer. I am involved in Actuarial Science Club, Circle K International, and Plan II Kipp Partnership.

Q: What was your motivation in participating in this case competition?

Initially, my motivation for participating in the actuarial case competition came from uncertainty about my career path. I had just started taking my first actuarial class, and my professor, Dr. Austin, encouraged us to try the competition as a way to gain real-world experience. I thought it would not only enhance my resume but also help me determine if pursuing a career as an actuary was right for me. Engaging in the competition allowed me to apply what I was learning in class to practical scenarios, which was invaluable. It turned out to be a rewarding experience that not only deepened my interest in the field but also helped me develop essential skills in analysis, teamwork, and presentation. Ultimately, it solidified my decision to pursue actuarial science further.

Q: What challenged you the most during this case competition?

The most challenging part of the case competition was balancing my commitments to school organizations while grappling with the overwhelming amount of data we were tasked with analyzing. When I first opened that Excel file and saw all the information laid out, I felt an immediate wave of anxiety. It was daunting, and I remember thinking I might want to quit because it felt like I had no idea where to start. That feeling of being overwhelmed was tough to navigate, especially with everything else on my plate. Juggling coursework, extracurriculars, and this competition was a lot to manage, and there were moments when I questioned my abilities. However, I realized that giving up wasn't an option. I took a step back, took a deep breath, and focused on breaking down the data into smaller, more manageable parts. This experience taught me not only how to analyze and use the information effectively but also how to handle stress and prioritize my responsibilities. Overcoming that initial hurdle ultimately became a valuable part of my personal and academic growth.

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Q: How did your background in pure mathematics help you in this competition?

My background in pure mathematics was instrumental in my success during the case competition. Studying math has taught me how to problem-solve and think analytically, especially when faced with new and unfamiliar information. This skill was crucial when we encountered the extensive data set. The rigorous training in mathematical theories provided me with a solid foundation in statistical methods and analytical techniques. I was initially overwhelmed when I first opened the Excel file filled with data. However, my ability to break down complex problems and approach them methodically helped me quickly and effectively learn how to apply the new material we needed to develop our reserving model. Additionally, my experience in pure mathematics enhanced my logical reasoning skills, enabling me to communicate our findings clearly and collaborate effectively with my teammates. Overall, the problem-solving and analytical skills I gained from my mathematics background allowed me to tackle the competition's challenges confidently and ultimately contributed to our success.

Q: What are some skills that you gained in this competition that you think will be helpful for your future as an actuary?

During the competition, I gained valuable experience in using development triangles and methodologies for creating loss development factors. We developed and learned about a half-and-half method, which we applied to calculate our final reserve for medical claims by analyzing severity data. This hands-on experience helped me understand how historical data informs future projections, a core aspect of actuarial work. In addition to these technical skills, I also developed critical soft skills. Teamwork was essential throughout the competition; collaborating with my teammates taught me how to communicate and leverage each person's strengths effectively. We faced challenges in aligning our ideas, and navigating those discussions improved my ability to work in a group setting. I also enhanced my presentation skills by clearly conveying our findings to judges, which is crucial for actuaries who must communicate complex information to stakeholders. Furthermore, the experience sharpened my data analysis skills, as I learned to interpret and extract meaningful insights from the data we were working with. Overall, the combination of technical knowledge and interpersonal skills I developed during the competition will be invaluable in my future career as an actuary, enabling me to assess risk accurately and work effectively in collaborative environments.

Q: Do you have any main takeaways from this competition?

I realized the importance of applying the theoretical concepts learned in class to real-world scenarios. This experience bridged the gap between theory and practice, reinforcing my understanding of actuarial methodologies. Working in a team highlighted the importance of collaboration and communication. Each team member brought unique strengths, and leveraging those effectively made us more successful. It taught me that diverse perspectives can lead to more robust solutions. I learned to be adaptable when faced with unexpected challenges, such as navigating large data sets. This experience reinforced the idea that staying calm and flexible is crucial when solving complex problems. Balancing this competition with my other commitments taught me valuable time management skills. Prioritizing tasks and staying organized were essential to meeting our deadlines and producing quality work. The competition improved my ability to present complex information clearly and confidently. I learned that effective communication is vital for conveying ideas and influencing decision-making.

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Q: What advice would you give to other students considering pursuing actuarial science?

For students considering a career in actuarial science, I advise building a solid foundation in mathematics, particularly in statistics and probability, as these are crucial for success in actuarial exams and the field. Start taking exams early to leverage your coursework and stand out when applying for internships and jobs. Get involved in relevant activities, such as clubs and competitions, to enhance your resume and gain practical insights. Additionally, developing soft skills like communication, teamwork, and problem-solving is essential for collaborating with colleagues and presenting findings effectively. The most important thing is never to give up, especially if you are considering doing it. The tests and many of the problems you will tackle will seem daunting initially, but keeping a level head and working through failures develops you and refines your skill. The only people I say who can not be an actuary are those who are not willing to be one.

Interview with Jerimiah Johnson

Q: Tell us about yourself!

My name is Jeremiah Johnson. I grew up in a small rural town: Elgin, Texas. In high school I fell in love with math and STEM through a lot of great Youtube content (Numberphile, VSauce, 3Blue1Brown, SmarterEveryDay, etc). Thus, I decided to pursue a math degree out of my love for the rich subject. I later fell in love with physics and added a physics degree as well as the elements of computing certificate. I am learning Spanish, and I plan to take a few years exploring the world!

Q: What has been your favorite class at UT so far?

It is hard to choose just one class as my favorite as I have had several incredible professors. My favorite class I am currently taking is Electrodynamics (with Caceres).

Q: What led you to pursue a career in actuarial science?

Actuarial science allows me to grow a career while focusing on being family oriented.

Q: Can you talk about your experience in balancing rigorous coursework and exam preparation or other school activities?

Add working to all of that. Last year, I took 16 hours per semester and worked on weekends. I didn't have any days off for months at a time. As far as exams go, they are still pretty new to me as I have only taken P.

Q: How do you see your background contributing to your success in actuarial science?

As someone who loves programming, pure math, and anything logic, I believe that I would be very successful in the actuarial field.

Q: What are your future plans or aspirations? Do you have any specific areas or pathways you're particularly interested in?

I plan to eventually go to graduate school to study some advanced mathematics. I am not sure which field.

Q: What advice would you give to other students considering pursuing actuarial science?

Being an actuary is a phenomenal career with great pay, stability, and work-life balance. Pass as many exams in college as you can.

Here is a guide that outlines the actuarial courses at UT designed to help students prepare for exams and support their journey. However, students should note that they may need to adapt the guide to their individual needs and be prepared to self-study certain exam material. Professor Walch has also provided recommendations for exams that cover extensive material.

UT Courses Covering Actuarial Exam Material

Preliminary (SOA and CAS):

- Exam P (Probability): M 362K
- Exam FM (Financial Mathematics): M 329F

VEEs (Validation by Education Experience):

- Economics: ECO 304K (Microeconomics), ECO 304L (Macroeconomics)
- Accounting and Finance: ACC 310F, FIN 357
- Mathematical Statistics (SOA only): M 378K

ASA Pathway (SOA):

- Exam FAM: M 339J, M 339U, M 349P, M 339C, M 339D, M 339V
  - The majority of the content is covered in M339J and M339U. Some topics are covered in M349P (Intro. Credibility), M339C (Pricing and Reserving), M339D (Option Pricing Fundamentals), and M339V (parts d and e of Premium and Policy Value Calculation for Long-Term Insurance Coverages); however, students do not need to take all the listed classes before sitting for FAM.
  - ***Walch Recommendation* – Students can plan on taking FAM after M339J and M339U, while concurrently taking some of the other courses or knowing that they'll have to self-study some of the material.**
- Exam ALTAM: M 339U, M 339V (offered Spring only)
- Exam ASTAM: M 339J, M 349P (offered Fall only)
- Exam SRM: M 349R, M 339G
- Exam PA: M 339G, M 375T (Actuarial Topics)

ACAS Pathway (CAS):

- Exam MAS-I: M 378K, M 339J, M 339U, M 339G
  - The majority of the content is covered in M378K, M339J, and M349R/M339G. A small portion of the topics are covered in M339U (simple whole life or annuity calculations) and M339V (joint life calculations).
  - ***Walch Recommendation* – Students can plan on taking MAS-I after M339J, M378K, and M349R or M339G, while concurrently taking some of the other courses or knowing that they'll have to self-study some of the material.**
- Exam MAS-II: M 349P, M 349R, M 339G, M 375T
- Exam 5: M 339C (offered Spring only)
- Exam PCPA: M 339G, M 349R, M 375T
  - new ACAS predictive analytics requirement

Fall 2023 Scholarship Recipients

Endowed Scholarships

Mark and Pamela Callahan Presidential Scholarship in Actuarial Studies

Joie Li

James Morris Dial Endowed Scholarship in Actuarial Studies

Emily Pietersz

Bruce Fuller Endowed Presidential Scholarship in Actuarial Studies

Nhu Nguyen

John S. Rudd Jr. Scholarships in Actuarial Studies

Miranda Chen

Eugene Wisdom Memorial Scholarship in Actuarial Studies

Diego Huerta Gutierrez

Recurring Scholarships

Actuarial Club of the Southwest

Rajshree Ganesh
Ruiyi Hao
Kelly Liu
Wenting Lu
Katie Wrigley

Rudd and Wisdom Actuarial Studies Scholarships

Kelsey Castillo
Steven Chow
Logan Gier
Emily Lai
Kevin Lips
Tuan Nguyen
Cassidy Tennant
Yifan Yu

Southwest Actuarial Forum

Tiya Kassen

Spring 2024 Scholarship Recipients

Endowed Scholarships

Actuarial Alumni Endowed Scholarship in Actuarial Studies
Wenting Lu
Aurellia Saat

Mark and Pamela Callahan Presidential Scholarship in Actuarial Studies
Joie Li

James Morris Dial Endowed Scholarship in Actuarial Studies
Emily Pietersz

Jim and Ann Daniel Endowed Scholarship in Actuarial Studies
Kysah Khoker

Bruce Fuller Endowed Presidential Scholarship in Actuarial Studies
Nhu Nguyen

CJ Liu & Family Endowed Scholarship in Actuarial Studies
Tzu-Yu Chen
Kuan-Wei Huang
Yifan Jin

John S. Rudd Jr. Scholarships in Actuarial Studies
Miranda Chen

Eugene Wisdom Memorial Scholarship in Actuarial Studies
Diego Huerta Gutierrez

Recurring Scholarships

Rudd and Wisdom Actuarial Studies Scholarships

Miranda Chen
Steven Chow
Sophia Fente-Damers
Logan Gier
Diego Huerta Gutierrez
Emily Lai
Nhu Nguyen
Emily Pietersz
Yifan Yu

Southwest Actuarial Forum

Katie Wrigley

USAA

Kelsey Castillo
Ruiyi Hao
Alexander Hoke
Tiya Kassen
Kevin Lips
Tuan Nguyen
Raul Trujillo Pena

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