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Math Department Newsletters

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Mathematics Department **NEWSLETTER** 2022

Math Department Wins Academic Innovation Award



Adam Goyt, Julia Roland, and **Jered Pigeon** were recognized with a **Dragon Excellence Award** in Academic Innovation

e have learned many lessons from the pandemic, but one that has been exposed most starkly is the inequality in access to education among many different groups in Minnesota and the country as a whole. As a Math Department, we have been observing this for years. Whether it be first generation students, Pell Grant eligible students, students from underrepresented backgrounds such as Black, Indigenous, and People of Color (BIPOC), or LGBTQ students, many have struggled to adjust to college life and the rigorous expectations of college-level courses. While most students undergo adjustment, data suggests that the populations of students described above are more likely to struggle.

In June 2019, [Minnesota State] set a critical goal: "By 2030, Minnesota State will eliminate the educational equity gaps at every Minnesota State college and university." This is a goal that the Math Department at MSUM believes can only be achieved if we focus on closing the equity gap in mathematics courses. Many studies have shown that a sense of belonging in college and a sense that a student can achieve their goals of graduating depend heavily on success in their math courses, regardless of the major

they have chosen. We believe that success in a student's first math course opens a door for them to be successful in future courses and leads to stronger graduation rates. So how do we help students achieve in their math courses?



We believe the answer is the SMART Start Program at MSUM. SMART (Student Mentoring Academic Resource Team) Start takes a twopronged approach to helping students be more successful in their first math course and in college in general. Students arrive on campus the week before classes begin, which is a few days before other freshman arrive, and begin a critical thinking course to help them get a jump on college life. During this bridge part of the program, students participate in mathematics activities, orientation activities and social activities.

There are two types of mathematics activities that the students participate in, individual and group. During the individual activities students are broken into teams based on the mathematics course they are taking. They are then given challenging problems related to the material that they will be learning in that course and are taught how to work together to succeed on that material. During the group activities, students are given challenging open-ended puzzles to work through and are, again, taught tools to help them be successful.

Outside of the classroom, students engage in orientation activities to help acclimate them to MSUM. They learn about how to get academic support, mental health and health support, how to adjust to life in a residence hall and much more. Additionally, they engage in activities that help build a strong social structure to support them if they are struggling with any of the common challenges of life in college.

The SMART Start program has existed on campus for many years, but the program needed a more academic side to it. Adam Goyt had been wanting to create a bridge program to increase student success in their first math class for many years but hadn't been sure how to get such a program off the ground. Adam reached out to Jered Pigeon, Director of the Office of Diversity and Inclusion in October 2020 to propose a collaboration, and the new version of SMART Start was born. After bringing in Julia Roland, Director of First Year Programs, we were ready to start building the program and recruiting students.

The first iteration of the math version of SMART Start was launched in Fall 2021 and had a cohort of 28 students. Honestly, we did not expect to have that many. We would have been happy with 12 considering how new the program was and the fact that it required students to take a math class their first semester. Additionally, SMART Start had a good amount of diversity among its students. The racial breakdown was about a third Black. a guarter Latino and the rest white. About a third of the course identified as LGBTQ. Additionally, there were students in it who were taking courses anywhere from Elementary Algebra to Multivariable Calculus.

Was it a success? Definitely. The most obvious way that it was a success was that the students formed a family. Since the course begins with an intense week before the semester actually begins, the course ends about eight weeks into the semester. At that point, we told the students that they could attend if they wanted to, and, to our surprise, many did. Students continued to come to class until the end of the fall semester. They wanted to see each other, connect, discuss what was going on in their lives, and get help with their math courses. Furthermore, all but one of the students who started with us in Fall 2021, enrolled in courses in Spring 2022. This kind of retention rate is

much higher than what we see in the general population.

Additionally, our students saw success in their math courses. We set a goal to get every one of our students through their first math course with a C or better. We did not achieve that goal, but our students did describe being happy that they were doing better in their math courses than they had expected. They also shared that they appreciated the support that SMART Start provided for them.

Finally, many of the students have come back to be mentors for SMART Start 2022. They were eager to give back to a program that they got so much out of. The following are a couple of comments from an anonymous end of semester survey.

- "I liked getting to know other students at the college and being able to get help with my math homework/questions from the professors."
- "I liked having teachers who are concerned for us and who are willing to help us."

At the end of the year banquet, Adam Goyt, Julia Roland, and Jered Pigeon were recognized with a Dragon Excellence Award in Academic Innovation. It was definitely nice to see our efforts recognized and to know that our work had an impact on students and helped MSUM take a step toward the Equity 2030 goal set out by Minnesota State. Math is the key to everything, and that came through in SMART Start.



Mathematics Department

Mathematics Awards for Outstanding Students

he faculty of the Mathematics Department annually selects outstanding students in mathematics for recognition of their achievements. This year 48 students were recognized and almost \$40,000 was given out in scholarships and awards. This year's Outstanding Senior Awards go to Kaylie Breid, Renzen Caughey, Eric Johnston, and Landon Metzger.



Kaylie Breid is from Dilworth, MN and is the daughter of Charles and Julie Breid. She received a Mathematics degree from MSUM in December 2021. While she was a student, she participated in the MSUM Dragon Dance Team.

Kaylie is currently working for

Auto-Owners Insurance Company as a Commercial Lines Underwriter. She is not sure what her long-term career will be, but her objective is to have a career that is mathematics focused.



Renzen Caughey is the son of Tonya and Rick Caughey and is from Brainerd, MN. He earned an Actuarial Science degree from MSUM in May 2022. As a student, he was a member of the Actuarial Science Club.

Renzen has accepted a full-time position as an Actuarial Analyst

for Segal Consulting. He plans to continue his actuarial journey to become an Associate of the Society of Actuaries and Fellow of the Society of Actuaries.



Eric Steven Johnston is from New Rockford, ND and is the son of Mark and Lauri Johnston. Eric received a Bachelor's Degree in Mathematics with an emphasis in Actuarial Science and a minor in Statistics from MSUM in May 2022. As a student at MSUM, Eric worked in the Academic Support Center as a math tutor.

Future plans for Eric are to do the best he can to support his wife and child, first by working in a bank, and eventually becoming an actuary. "Don't be afraid to start something you're not sure about, you might learn something about yourself you never knew!" - *Eric*



Landon Metzger is the son of Eric and Lori Metzger and is from Monticello, MN. He received an Actuarial Science degree from MSUM in May 2022. While a student, he was President of the Actuarial Science Club and a Math tutor.

Landon is an Actuarial Associate in

Annuity Valuation for the Sammons Financial Group in Fargo, ND. His future plans include attending graduate school. "The math department at MSUM does a great job at helping their students to fully understand the material..." - Landon

Scholarships & Awards

Bette G. Midgarden Endowed Scholarship awarded to Mathematics majors **Matthew Davis, Anna Elgersma**, Mathematics major **David Wichmann**, and Mathematics/ Mathematics Education major **Sophia Sowada**.

Carl T. Carlson Scholarship awarded to Mathematics Education major **Kendra Kaczynski**.

Dr. James and Elaine Hatzenbuhler Math Scholarship awarded to Actuarial Science major Nick Hermes.

James T. Wallen Scholarship awarded to Mathematics/ Mathematics Education major Luke Meyer.

Katherine Leonard Scholarship awarded to Mathematics major **Alexander Nagengast**.

Ken Garland Scholarship awarded to Mathematics Education majors **Emma Houska**, **Kendra Kaczynski**, **Emma King**, and Mathematics/Mathematics Education major **Luke Meyer**.

Marion V. Smith Memorial Scholarship awarded to Actuarial Science major Jack Carver.

Rothmann Family Scholarship awarded to Mathematics major Keigan Rantala.

Shelda Warren Math Education Scholarship awarded to Mathematics Education major Alexa Lien.

Tim and Kathy Peil Mathematics Scholarship awarded to Actuarial Science major Jack Carver, Mathematics major Matthew Davis, Mathematics Education major Kendra Kaczynski, Mathematics Education major Emma King, Mathematics/Mathematics Education major Luke Meyer, Actuarial Science major Mary Sandeen, Actuarial Science major Adam Schloemer, and Mathematics major David Wichmann.

Transfer Scholarship awarded to Actuarial Science major Cheyenna Tourville.

Other Awards

Sophomore Mathematics Award: Doviane Agba and Tessa Primus

Freshman Mathematics Award: Ansel Anderson, Jason Koehn, Judah Nava, Brynn O'Connor, Brennan Olthoff, Caaden Rath, Paul Remer, Mary Sandeen, Adam Schloemer, and Owen Stoltz

Incoming Freshman Award: Kristen Hardy, Lynn Skiba, and Brandon Stalboerger

Outstanding Performance by a Mathematics Minor: Jenna Lee and Kai Yodoya

Outstanding Secondary Mathematics Education Major: Emily Greene

Outstanding Senior Elementary Education Major: Olivia Freehauf, Taylor Kugler, and Rachel Loberg

Mathematics Department

News and Notes 2021-22

Advanced Actuarial Science Program

The Actuarial Science Program at MSUM will officially be an advanced program starting in Fall 2022. The requirements for an advanced program are that we prepare students for at least four actuarial science exams and meet all of the other VEE requirements set by the Society of Actuaries. We have been preparing students for the Probability and Financial Mathematics Exams for years, but now we will also prepare them for the Fundamentals of Actuarial Science and Statistics for Risk Modeling Exams. We are grateful to **Professor Hongyan Hou** for all of the work she has been putting in to prepare to teach the courses for these advanced exams.





МСТМ

The Minnesota Council of Teachers of Mathematics Conference held its annual conference, April 30, 2022, in person this year. The theme was Reunite and Ignite, and math teachers from around the state were thrilled to be together again.

Professors Tammy Fitting and **Tim Harms** both presented at the conference. Tammy gave two presentations, one entitled *"Engaging and Assessing Using Free Web Sites"* that explores free web sites that support interactive and formative assessments. The other was *"Math Pathways & Co-Requisites,"* which discussed how colleges and universities are implementing strategies to help students get through their first college-level math class within their first year.

Tim also gave two presentations. One was entitled "*Examples of Coding and Resources for Math Teachers*" that discussed using various software to code mathematics. The second was a joint presentation entitled "*Positive Developments in Minnesota Teacher Preparation*" which discussed various Noyce programs around the state and lessons learned about involving teachers in teacher development.

Additionally, faculty members **Adam Goyt** and **Tammie Schmiess** along with Secondary and Elementary Mathematics Education Alumni Erin Giosta, Sarah Harms, Alexis Hruby, Jena Infinger, Jay Noland, Heather Sauve, Ashley Skalsky, and Julia Wallace attended the conference.

Faculty Professional Activities

Ashok Aryal was awarded tenure and promotion this year! Congratulations Ashok, we are so glad you are part of our department. Additionally, Ashok's paper with Dr. Ramesh Karki entitled "An Approach For Recovering Initial Temperature Via A Bounded Linear Time Sampling" was published in the Journal of Mathematical Analysis and Application.

He also submitted a paper "Solvability of Inclusions Involving Perturbations of Positively Homogeneous Maximal Monotone Operators" which was co-authored with Dr. Dhruba Adhikari, Dr. Ghanshyam Bhatt, Dr. Ishwari J. Kunwar, Dr. Rajan Puri, and Dr. Min Ranabhat.

Ashok gave an invited talk entitled *"Generalized Averaging Property for Arbitrary Divergence Form Uniformly Elliptic Operators"* at the ODU Math Awareness SIAM Conference.

Finally, he mentored four students who presented at the MSUM Student Academic Conference. **Matthew Davis** and **Clay Rasmussen** presented *"Optimistically Modeled Statistics"* and **Alexa Lien** and **Sophia Sowada** presented *"Differentiation Equation Model Spread of Infectious Disease"*. **Tammy Fitting** gave two presentations at the MCTM conference "Engaging and Assessing Using Free Web Sites" and "Math Pathways & Co-Requisites".

Adam Goyt was awarded the Dragon Excellence in Academic Innovation Award for his work in developing the new version of SMART Start.

Tim Harms co-presented with Marci Glessner, Professor of Special Education, *"Considerations when AVMR 1 is Applied to Students with Developmental Disabilities"* at the U.S. National Math Recovery Conference held on April 27th, 2022.

Tim also presented two sessions *"Examples of Coding and Resources for Mathematics Teachers"* and *"Positive Developments in Minnesota Math Teacher Preparation"* at the Minnesota Council of Teachers of Mathematics Conference in Duluth, April 30, 2022.

Finally, he attended a mini-conference on Promoting Reasoning in Undergraduate Mathematics at Georgia State University, in Atlanta, Georgia, May 19-21, 2022.

Justin James also attended the mini-conference on Promoting Reasoning in Undergraduate Mathematics at Georgia State University, in Atlanta, Georgia, May 19-21, 2022.

Justin continues to serve as Treasurer for our local section of the MAA and as a leader of SEED seminars.

Lian Ng presented "Sum of Geometric Sequence to becoming Millionaires" at the Math Seminar in February 2022.

Retirement

The math department said goodbye to long-time faculty member Sayel Ali this spring. Sayel has been with the math department since 1989 and has been a beloved teacher to many students. We wish you all the best in retirement, Sayel.



Sad News

It is with great sadness that this news is passed along to you. Our colleague, **Gerda "Kris" Montis**, 67, of Moorhead, MN, passed away suddenly on August 11, 2022, in Sanford Medical Center, Fargo, ND.



PROBLEM CORNER 2022

A Pigeonhole Problem

Prove that from a set of ten distinct two-digit numbers (in the decimal system), it is possible to select two disjoint non-empty subsets whose members have the same sum.

Solution for PROBLEM CORNER 2021

Based on the fact that Jones asks whether there is more than one child in the Black family, we know that the house number must be the product of four integers in at least two ways. One of the sets of four integers must have smallest integer 1 and one must have smallest integer 2. Among the possibilities there only 3 sets of integers that we would consider {1,3,5,8}, {1,4,5,6}, and {2,3,4,5}.

Since Jones did not have to ask any further questions once Smith replied, it must be the case that the number of children in the families is 2, 3, 4, and 5.



Mathematics Department

2022 Alumni News

522 Curtis H. Thorfinnson '62 Curtis passed away on May 8, 2021. Bonnie J. Thorfinnson. (*Our deepest sympathies to you Bonnie.*)

Richard MacGregor '63

Deceased in March 2022. Diane MacGregor (*Our deepest sympathies to you Diane*).

Jason "Jay" Spillum '64 Jay passed away in October of 2021. Dianne Spillum. (*Our deepest sympathies to you Dianne.*)

Ray Nelson '68

I worked at Buick as an engineer 68-76; Steiger tractor as an engineer and supervisor 76-78; Case Tenneco as engineer and supervisor 78-80; Haliburton 82-2008 as quality control engineer, supervisor, plant manager and General Manager; retiring in 2008.

I enjoy summers at Pelican Lake and winters with my son's family in Golden Valley.

Jerome A Degerness '69

699 Strange year number two, 2021, is drawing to a close. It started off with everything on remote or cancelled including the American Baseball Coaches Association Convention which was three days of end to end zoom meetings, a long haul. I take my hat off to the teachers and students who have dealt with that on a daily basis over the year.

Some things went live. In January, I played in the Bob Wagoner Wooden Bat Classic in Fort Myers. The tournament is combined with a fundraiser for challenged athletes. I stayed around through the beginning of February for the Roy Hobbs Sunshine Classic.

The ski season, which started out great, became a flop with too cold or too warm temperatures and baseball travel wiping out most of the opportunities. Late day lift openings, students home schooling on the slopes and mandatory daily lift ticket reservations were an administrative barrier. Summer baseball pretty much returned to normal. Our Metro 50+ league played a full season with some 60+ games between teams fielding 7 or more 60+ players and a 60+ pitcher. We also had two 70+ "All Star" games; lots of fun, it is much easier competing against players my own age. Minnesota high school baseball and summer leagues returned to normal schedules. That put me on the field coaching and managing from April through the end of July. It was nice not to have the season extend through August as it did last year so I could concentrate on playing and training for the national tournaments in October and November.

I was able to play on three MSBL tournament teams in Arizona and another two Roy Hobbs teams in Fort Myers – five different teams. My 65+ and 70+ MSBL teams in Arizona were not competitive, but the Cambria 73+ team had championship aspirations, which unfortunately, did not materialize. In the Fort Myers Roy Hobbs tournament, my Philadelphia Mustangs 70+ team won the 2A championship and our Minnesota Saints 75+ team won the 3A championship. It was a blast.

My family continues to grow and prosper; we gathered as usual at Easter, Thanksgiving and for Luke's christening. John, Carrie and grandson Luke (I) live in Minnetrista. John just started a new job which he is very excited about. Jillian continues to reside in Austin, Texas and has a new dog named Oliver. Megan is teaching at a new school closer to her home, managing Chandler (I2) and Thatcher's (7) activities and supporting Mitch in his third year of medical school. Both boys are busy with school and sports. I took Thatcher to a water park during Thanksgiving week; it was fun, but I was hard pressed to keep up with him.

As usual, the barn on the Degerness family farm got a bunch of fixes including new siding and the garage got a new roof. My four brothers and I were able to spend the first week in October doing farm stuff. Cousin Roger brought his drone and took some great areal pictures. For the second

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year running, there was no sing along or meatball supper with the neighbors. I am hoping that social distancing will be a thing of the past by that time in 2022.

The Woodbury Lions Club returned to in-person meetings with a remote Zoom option for members unable to physically congregate. I served another year as Chair of the Scholarship Committee. The Committee focus was to support students from families who have suffered from cancer or diabetes. There are significant privacy restraints which limit what we can do in terms of reaching out to victims of these diseases and with schools on remote learning, the school counselors and students did not have traditional opportunities to interact during school hours. We had very few applications and did not award any scholarships. We are adding visual impairment to the eligibility criteria and expect that having students back in the classrooms will invigorate the process in 2022.

Dancing started making a comeback when people started to get vaccinated. It's still pretty slow in Minnesota, but Phoenix is most of the way back and Florida never shut down. Travel perks; I go out every night there is an available event.

I had five aging trees removed from my yard this fall and am looking forward to the sunshine getting through to bring my lawn back to full green where it had been retarded by shade. I have lots of logs to cut up for firewood.

In 2022, I played in the Bob Wagoner Wooden Bat Classic and the Roy Hobbs Sunshine Classic Baseball Tournaments in Fort Myers, Florida and the Men's Senior Baseball League Spring Tournament in Las Vegas. I practice twice a week with similarly motivated senior players.

I play the guitar every day. The last song I have learned is *"Across the Great Divide"* written by Kate Wolf.

Organizing and scheduling for my summer youth baseball teams. On field coaching activities start in April.



Doug Dokken '73

The photo is of me in front of the Stefan Banach Institute in Warsaw, Poland (1995).

I received my B.A. in mathematics and B.S. in physics, from Moorhead State in 1973, a M.S. in mathematics, from North Dakota State University, in 1975, and a Ph.D. in mathematics, from the University of Minnesota, in 1985. I have taught at the University of St. Thomas for 37 years, I have done research and directed student research during that time. My research area is dynamical systems theory, with a flavor of topological dynamics, ergodic theory and harmonic analysis. In recent years, I have also done research into fluid dynamics and turbulence, applying these ideas to the investigation of tornadogenesis and tornado maintenance. I will be retiring this summer.

In my younger years, I was an avid rock climber and boulderer, climbing on a variety of structures in the Red River Valley and on crags throughout the midwest, Blackhills, and Wyoming.

David Jensen '81

XI graduated from MSUM with a dual major in Mathematics and Computer Science and am now a Master Engineer at Broadcom's Chandler, Arizona office. I have been helping design computer chip circuits for Broadcom for the last 22 years. There is a very high probability that if you use the internet, your data was processed by some sort of Broadcom chip that I contributed to. The logical thought processes required for mathematics has proven useful for my career in the computer chip industry. One undergrad math class that I took (at NDSU), which applied to my career, was "Introduction to Graph Theory".

My wife (Elena Alvarado, Spanish major, class of 1982) and I have 3 children and 6 grandchildren. We've been living in Phoenix for almost 41 years, ever since I graduated from Moorhead State University. I am a licensed chaplain at our church, and Elena uses her Spanish to do volunteer mission work. I have completed 2 Ironman triathlons and a 600 kilometer bicycle-ride-in-2-days since turning 50 years old.

Katie Carlson Choi '86

X I am happily married to my husband of 3-1/4 years and living in Canada now. We own a Recycling Bottle Depot and I am the manager, bookkeeper, accountant, and counter cashier at our depot. He is a Lutheran Pastor and currently serves a small Korean community for worship services.

It has been difficult to have the connections back in the States with friends and family with the Covid situation. However, we did make a fast trip home between Christmas and New Years in 2021. I hadn't seen my son for 3 years so that was a great opportunity.

We travelled to Korea, my husband's native land, in August of 2021. We will travel to Nicaragua at the end of March 2022 to do 2 weeks of religious mission work.

All is good with life. I look forward to new challenges and experiences as a "Canadian."

Becky (Lewin) LeDocq '86

After 31 years as a Professor at the University of Wisconsin-La Crosse, I will be retiring in May 2022! I look forward to traveling with my husband, getting back into old hobbies, and simply relaxing. Our son graduated from college with a degree in Computer Networking and Information Systems in December 2021 and is working at a health insurance company in the Minneapolis area. My daughter is finishing her sophomore year at MSUM as a Film Production major.

Angie Hodge-Zickerman (Hodge) '02 Angie is an Associate Professor of Mathematicsin the Department of Mathematics and Statistics at Northern Arizona University (NAU), Flagstaff, Arizona.

Angie is enjoying mountain life in Flagstaff. In August, she completed the Leadville 100 mile run in 24 hours and 14 minutes, which gave her a top 10 female finish. She sees running as a real life application of problem solving and has been trying to reach this goal for many years. Productive failure and persistence are encouraged in her mathematics classes as well as in her life. She will be taking over as graduate operations chair for the Northern Arizona University Department of Mathematics and Statistics and encourages MSUM students to apply for a master's degree at NAU in mathematics, statistics, or mathematics education.

Udip Rayamajhi '04

Working as cloud security engineer for HUMANA, Inc. Kids are growing up (2 yr old and 6 yr old daughters.) Looking forward to traveling finally!!

Eric Eager '08 Eric is the Head of Research, Development and Strategy at Pro Football Focus, a worldwide leader in sports analytics. In Eric's role at PFF, he consults with all 32 National Football League teams, over 100 college football teams and all major media entities. This spring, Eric gave a lecture at the University of Minnesota's Institute for Mathematics and its Applications, and finished as a semi-finalist in the MIT Sloan Sports Analytics Research Paper Competition. Eric teaches a sports analytics course to high school students during the summers for The Wharton School in Philadelphia, PA.



Harmony (Venburg) Richman '08 (undergrad) '12 (graduate)

I am in my 11th year teaching at Valley City State University and have recently been promoted to Assistant Professor in the School of Education and Graduate Studies. My course load consists of teaching the Math for Elementary Teachers sequence and Educational Technology

both face-to-face and online. I adjunct for Dakota College at Bottineau where my efforts are placed on dual credit College Algebra, Pre-calculus and Calculus I. I've taken on a new role as President of the ND Council of Teachers of Mathematics which started March 2022. I am still the program coordinator for the College Ready English and Mathematics program helping high school learners across the state of ND prepare for their college level coursework.

Megan (Sanford) Miller '15 Megan is self-employed as a health and wellness coach in Fargo, ND.

Josiah Reiswig '15

I am finishing up my 3rd year as an assistant math professor at Anderson University (SC). Next Spring, the class of math students who entered AU as freshmen during my first year as a professor will graduate. Seeing students develop mathematically and personally over their college career has been incredibly rewarding. I have also had many opportunities to reflect on the outstanding education and experiences I received as a student at MSUM. I often think that if I can provide students with the same level of guidance and classroom experiences as I was privileged to have as a student at MSUM, I will be very satisfied with the work I am doing as a professor.

I am also taking on a bigger role in the administration of the department. This has taught me never to volunteer to take on a bigger role in the administration of the department :).

My wonderful wife, Berkeley, continues to adjunct with the math department at AU as well. After simultaneously teaching at different schools in the past, it is great for us to be on the same academic calendar. Our daughter, Piper Jane, who will turn 2 in May, surprises and impresses me every day with her knowledge, personality, and climbing skills. Our son, Ezra Jude, was born on March 28th of 2022. With a birth weight of 9 lbs 15 oz, he is a big source of joy for us.

Leslie Miller '19

This year, I became an Associate of the Society of Actuaries and a Member of the Academy of Actuaries. I've continued my job as an actuarial analyst for State Farm Life Insurance Company and am thoroughly enjoying working on our Life Modernization team. This team is collaborative and advises numerous non-actuarial teams while working on helping the coders translate actuarial calculations from the old to the new system.

I have become passionate about learning effectively and maximizing learning with the limited amount of time I have to study for actuarial exams. This has opened opportunities for me to mentor younger actuarial students. I want to help give them any advantage I can, and I have been benefitting from their enthusiasm as my exam senioritis has been setting in (a little early).



Mathematics Department

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e encourage you to make a contribution to the MSUM Foundation when they contact you in their annual appeal. Please consider designating your donation to a mathematics department scholarship (there are several) or to the mathematics department discretionary fund. In fact, we now have an endowed fund for actuarial among them. The phone volunteer may not ask if you want to designate, but your expressed wishes will be honored. Thanks.