

WE MADE IT THROUGH

Well, we've made it through our two years in Foundation Hall. After getting Foundation prepared for our invasion, we had a pretty good run until the Pandemic hit in 2020. Then things got a little dicey. Putnam County was the victim of an EF-4 tornado, and almost immediately after, the entire state shut down for the COVID-19 virus. We had an extended spring break and then all classes went online for the rest of the semester. And to add insult to injury, we ran out of toilet paper! The year of 2020 will definitely go down in history.

Now, we can see a light at the end of the tunnel as the vaccination process is in high speed. Anyone over the age of 16 can now get vaccinated. Maybe, just maybe, we can have a somewhat normal 2021-2022 academic year.

The good news is that it looks like we'll be back in a newly renovated Bruner Hall in the fall. Here's to a better 2021-2022 academic year.

BACK TO BRUNER OR BUST

Plans are being made to move back to Bruner Hall for the fall semester. Our faculty and staff are busy packing up their belongings in preparation of the big move back to Bruner.

Hopefully, we will be in the building and ready to go by the time the fall semester begins. The building has been completely gutted and new walls put up. Some of the old faculty offices have been converted into classrooms or seating areas and new faculty offices have been made from what once were classrooms. There will be two student lounge areas, one on the first floor and one on the fourth floor. A new vending area will

be on the first floor. Departmental offices for Math, Physics, and Computer Science will be located on the second floor. The math office will not be in the same location as it was when we moved out so be sure to check the signing on the door before you walk into an office.

We've had a delightful time in Foundation Hall for the past two years, but now it's time to get back to Bruner.

Let's Get Packing!



RETIREMENT OF DR. NORDEN, Ph.D.



Jeff Norden has been with the Department of Mathematics since August 1, 1989. He began as an assistant professor and worked his way to a full professorship. He served the university a total of 31 years. It's

always a sad time for the department when one of our beloved professors leaves us for the bliss of retirement.

Due to the pandemic, we celebrated Norden's retirement with only a small gathering of friends and peers. Some of our faculty chose to celebrate with us through ZOOM, which is something most of us had never even heard of before the pandemic. Even though we couldn't have as big of a celebration as Jeff Norden deserved, we all want him to know he leaves a void in the department and will be sorely missed.



MATH CLUB

This year the Math Club gave its members the opportunity to present various topics related to math and computer science. During the first half of the semester, the club concentrated on learning how to use LaTeX to typeset complex mathematical formulas for things like homework and notes. After the members got comfortable with the program, the students gathered resources and created an instructional file that will allow future students to easily download and learn how to use LaTeX. The club investigated the connection between mathematics and computer science by exploring various computer algebra systems and programming languages. The club explored automata and the mathematics of video game programming, including programs such as the 3D animation software, Blender.

The Math Club held officer elections in April and welcomes the new officers-- Patrick Bartol as president, Blaine Swieder as vice president, Adriana Gore as secretary, and Ryland Smith as treasurer.

GRADUATION

Congratulations to Seth Agee, Steven Buchanan, Caleb Gilmore, and Prosper Aime Tchoumo for completing their master's degree requirements!

Seth, under the supervision of Associate Professor Motoya Machida, successfully defended his thesis titled, "Martingale representation, Girsanov's theorem, and a generalization of the Black-Scholes model." He plans on pursuing a higher degree in computer science or a career in programming, statistics, finance, or a related field.

Steven, under the supervision of Associate Professor Andrew Hetzel, successfully defended his thesis titled, "On the Asymptotic Growth of Some Arithmetic Functions Related to the Mean Value of the Number-of-divisors Function." Steven is planning to work on a Ph.D. in math at UT Knoxville.

Caleb, under the supervision of Associate Professor Andrew Hetzel, successfully defended his thesis, "Potently Primary Ideals." He will be pursuing a higher degree in secondary education over the next year to receive teaching licensure for Tennessee. This will allow him to begin teaching math at White House High School in Sumner County in the fall.

Prosper, under the supervision of Assistant Professor Chuda Poudyal, successfully defended his thesis titled, "Robust Estimation of Lognormal Severity Models." Prosper will be attending Iowa State University and working on a Ph.D. in the Department of Statistics.

Thank you to all of their committee members, advisors, and graduate faculty for the great job they are doing with our graduate students.

We have nine undergraduate students who are on track to receive bachelor's degrees in mathematics this semester. They are Mahongony Cobb, Ian Dewan, Jacob Escue, Andrew Lounsbury, Mohera Narimetla, Matthew Piras, David Rowin, Alizza Schremp, and Samuel Taylor.

Congratulations to you all and may your futures be bright!

GEN. ED. TEACHING AWARD

Congratulations to Mark Rogers on being awarded the 2020-2021 General Education Teaching Award. Mark received this award upon the recommendation of the General Education Teaching Award Committee. The award includes a \$1000 prize and a plaque. He will be recognized as an award winner at the college faculty meeting in the fall.

When asked about how he felt about receiving this award, Rogers stated, "I'd say



I'm speechless, but I suspect a speech will be required."

GREAT JOB! Keep up the good work.

WHAT'S HAPPENING

Professor Emeritus Rafal Ablamowicz continues to work as Editor in Chief of the *Advances in Applied Clifford Algebras*. Tennessee Tech is listed as his home institution in the following link:

<https://www.springer.com/journal/6/editors>

Last August he participated in the International Conference on Clifford Algebras ICCA 12 that ran via Zoom from Hefei, China. More information on the conference can be found here:

<http://www.smartchair.org/hp/ICCA2020/>

Gayana Maduranga ('13 M.S.), former TN Tech graduate student under the direction of Professor Ablamowicz, defended his Ph.D. thesis, "Unitary and Symmetric Structure in Deep Neural Networks," last July 2020 at the University of Kentucky. He was offered and accepted a one-year position of a postdoctoral research associate at the University of Notre Dame starting in the fall of 2020.

Manisha Varahagiri ('18 M.S.), also one of our TN Tech graduates with a master's degree, is doing well in her Ph.D. program at SIU.

Anna Litchford ('15 B.S., '17 M.S.) and Hannah (Betsy) Downs ('15 B.S., '17 M.S.), who both received their bachelor's and master's in math from TN Tech, are still at UT Knoxville pursuing Ph.D. degrees in mathematics.

Deji Badiru ('81 M.S.), an esteemed alumnus from the TN Tech Department of Mathematics, received the Taylor and Francis Lifetime Award in October 2020. Badiru says that Tennessee Tech University played a foundational role in the cumulative accomplishments leading up to this award recognition.

Kudos to you all for your accomplishments and the effort you are putting forth to

achieve your goals. We are proud to say you were once a part of the Tennessee Tech Mathematics Department and look forward to hearing more about your achievements in the future.

IN MEMORIAM

Associate Professor Emeritus Khyson Swong passed away in his sleep in November 2020 from complications from COVID-19. He was 96 years old. During his lifetime he survived two wars, WWII and the Korean War. Khyson Swong was born in Chollado, Korea in 1924. He attended and graduated from the prestigious Yonsei University in Korea with a B.S. in mathematics in 1950. To further his study, he applied for and received a Fulbright Scholarship at the University of Michigan and graduated with an M.S. and a Ph.D. in mathematics in 1963. He returned to Korea to teach at Yonsei University for three years and then applied for several professorship positions in Canada and the U.S., ultimately choosing Tennessee Tech. Swong taught mathematics at TN Tech from 1966-1989. He spoke fluent Japanese, and while at Tech he was recruited by the state of Tennessee to act as an interpreter when the state was in the process of persuading Nissan to build a plant in Tennessee. More information on Khyson Swong's lifetime achievements can be found at this link to his obituary:



<https://frankpatti.com/tribute/details/883/Khyson-Swong/obituary.html>

If you would like to Vaccinate, make a date.

TN Tech Health Services is offering free COVID-19 vaccinations. To make an appointment call 931-372-3320.

State of Tennessee Vaccine Finder
<https://covid19.tn.gov/covid-19-vaccines/availability/>



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