



Special points of interest:

- Math & Physics merged into one department.
- The number of math majors is 27 undergraduate and 7 graduate students, There are 32 undergraduate computer science majors. The number of physics majors is 9 undergraduate and 5 graduate students.

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Pittsburg State University
College of Arts and Sciences

News from the Chair

As I indicated in my previous article, we continue to settle into the “new normal”. Thanks to the lessons learned through the pandemic and the addition of web cameras in our classroom we are able to provide alternative delivery methods for many of our courses. Most of our courses have reverted back to face-to-face instruction but we now have the ability to broadcast our lectures or to record them for students to review at a later time.

We are excited by the explosive growth of the Computer Science program. Since its inception in August 2022, it has grown to 32 students in the program. That’s pretty incredible growth for a year! The PSU foundation staff is working diligently with benefactors and donors to provide scholarship support for the students in this burgeoning program.

We conducted a search for a tenure-track Computer Science faculty member, but we were not successful in the search. We have hired adjunct faculty to cover the immediate need and we plan to resume the search for a full-time faculty member.

Dr. Hazel Coltharp has



completed her phased retirement and fully retired at the conclusion of the spring semester. The mathematics education program in the department owes a great deal to Dr. Coltharp and she will be missed by all. We wish her the best in her future endeavors. Mr. Alan Pommier (BSEd '03, MS '05) has been hired to cover the courses typically taught by Dr. Coltharp.

Mr. Pommier will also be tasked with overseeing Math Relays as Mrs. Martin transitions through her phased retirement. Mr. Pommier will work closely with Mrs. Martin next spring to ensure a smooth transition.

In addition to Mrs. Martin’s phased retirement, Dr. Dobrowolski has also entered into a phased retirement agreement. With all of the upcoming retirements, the department will soon have an entirely new “face”.

One of the most exciting events of the year was Dr. Cynthia Huffman receiv-

ing the George Mach Distinguished Service Award from Kappa Mu Epsilon. This award is “KME’s most important award, and is given biennially to recognize an individual who has served the society with distinction”. Congratulations to Dr. Huffman on this well-deserved recognition! Dr. Huffman is following in the footsteps of Dr. Harold Thomas who received the Mach Award in 1997.

Each year when I write this recap it seems like we must always pause to mourn losses from the PSU Math Department “Family”. This year is no different. Alice Thomas, the wife of Dr. Harold Thomas passed away February 26, 2023, and Barbara Coltharp, the wife of the late Dr. Forrest Coltharp and mother-in-law of Dr. Hazel Coltharp passed away May 15, 2023. These two wonderful and caring ladies will be missed by all who knew them.

I hope my comments here open the door to the events you will read about in the remainder of this newsletter. As we share the news from within the department, we would love to hear from you as well. If you have any news about happenings in your life, please feel free to let us know so we can pass the word on to others. We would welcome a visit from you if you ever happen to be back in Pittsburg.

Math and Physics Merge

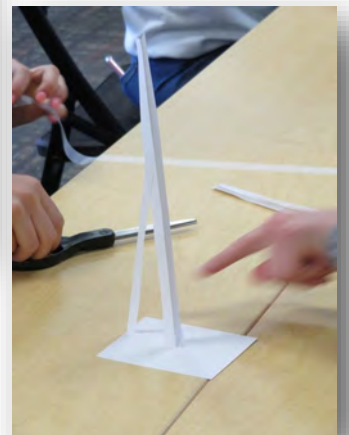
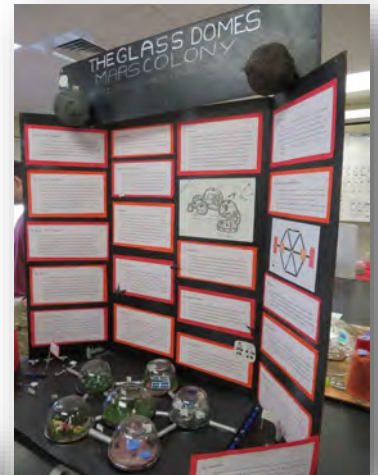
The College of Arts & Sciences has been restructured into four schools and one department - the Irene Ransom Bradley School of Nursing; the School of Humanities and Fine and Performing Arts; the School of Science and Mathematics; the School of History, Philosophy and Social Sciences; and, the Department of Military Science. As part of the restructuring, Mathematics and Physics are now in one department.

Physics Participates in Science Day

On April 13, 2023, Physics participated along with Biology and Chemistry in the annual Science Day. High school students had the opportunity to participate in a series of challenging individual and team events designed to showcase their skill and knowledge in a fun and friendly environment. More information, including a list of winners can be found at <https://www.pittstate.edu/artsci/science-day/index.html>. Pictures below are from the event. Photo credits to Dr. Rebecca Butler.



Join us on
Facebook:
Pittsburg
State University Department of
Physics
and/or at
Pitt State
(Kansas)
Math Alumni



Gorilla Teachers Are Recognized

Several alumni were recognized within the past year. Below are posts from Facebook.

GET INVOLVED

Want to help students attend conferences? Contact Dr. Tim Flood (tflood@pittstate.edu) for information about supporting student travel.



Unified School District 234

October 5, 2022 · 🌐

USD 234 and Fort Scott High School are excited to recognize Mrs. Amy Harper as the FSHS Teacher of the Year and 2024 Kansas Teacher of the Year Nominee. Mrs. Harper teaches math at FSHS and serves as the math department lead and Guiding Coalition Team member. In addition to ensuring success for her students, she is also intentional about establishing relationships with them. When students are asked about how their class is going, it is not uncommon to hear, "Mrs. Harper is just a good teacher." According to Mr. Kimble, "When she's at the board teaching, that's where the magic happens."



El Dorado High School

November 14, 2022 · 🌐

Congratulations to our very own Jelinda Keeling, the USD 490 Teacher of the Year! We are so proud of you! ❤️❤️❤️



Pittsburg Area Chamber of Commerce

April 27 · 🌐

The chamber and [Pitsco Education](#) are proud to present Nate Clevenger with [Girard Trojans](#) as one of three 2023 Pitsco Educator of the Year finalists!

Nate is an 8th grade math teacher at Girard Middle School. He believes that all students have the ability to learn, just at different paces. Nate strives to treat all students kind and fair, while building relationships that last even after they have moved on from his class.

HIGHLIGHTS FROM PHYSICS (Contributed by Dr. Serif Uran)

- Physics helped host Science Day with over 400 high school students in attendance with six different events: Mars Colony, Physics Face-off, Paper Tower, Mouse Trap, Astronomical Shuffle, Rock Recognition
- Our local PSU-Society of Physics Students (SPS) won “Notable Chapter Award” given by the American Institute of Physics last year. PSU-SPS has won various awards every year since 2013.
- Graduates were accepted for further study at Illinois Institute of Technology, University of Illinois at Urbana-Champaign, and Arizona State.
- A Materials Science master’s degree is offered by the physics department. We had three graduates last year. We graduated three more at the end of Spring 2023. Six new graduate students started the program within the last year.
- We were able to add research equipment to our department. Namely, we purchased a MinusK vibration isolation system that helps us to perform measurements with very little vibration. In addition, we also purchased a Nanomagetics Atomic Force Microscopy (AFM) system. Especially our Atomic Force Microscopy and 3D Profilometer measurements can really use this vibration isolation system. We are also working on a Newport monochromator that was donated to the department by a local scientist. It was missing a power supply, but we were able to find it from the manufacturer. This instrument will allow us to create very accurate wavelength light from UV to NIR region, which can be used for optics and materials science experiments.
- Planetarium: David Pearson has been working on developing our own in-house planetarium shows so that we don't have to rely on rentals. He has one show that he has been using for field trips, and he is working to refine that. He is also working on a second planetarium show right now. He would like to begin involving other campus departments that might be able to help produce even better shows with custom 3D animations and to hopefully get more students involved in the planetarium in some way.



Upcoming Events

MAA MathFest,
Tampa, FL, Aug 2-5,
2023

PSU High School Math
Honor Day,
Oct 5, 2023

PSU Homecoming,
Oct 28, 2023

PSU Fall Break,
Nov 20-24, 2023

Joint Mathematics
Meetings, San
Francisco, CA Jan 3-6,
2024

2024 Spring Semester
Starts Jan 16, 2024

KSMAA, Washburn
University, Topeka, KS,
TBA

PSU Math Relays,
April 9, 2024

KME Regional
Convention, TBA

Awards Banquet, April
21, 2024

PSU Mathematics and Physics on Facebook



If you are a Facebook user, there are two ways that you can stay connected with PSU Mathematics. One way is via a group with a focus on teaching called *Gorilla Math Teachers*. It is a great source of information including teaching ideas and job openings. It also provides a community for asking advice and questions related to teaching. The other way to stay connected is with the *Pitt State (Kansas) Math Alumni* group. Information related to the department and alumni is posted along with interesting mathematical tidbits as well as opportunities and job openings. Both of these groups are closed, so that anything posted is only available to be seen by others in the group. (Can you guess why the Kansas part was added to the name of the alumni group?) We would love to have you join either or both groups if you are interested. Just search for the name of the group within Facebook and put in a request to be added to the group.

It is also possible to stay connected with PSU Physics on Facebook. Just “like” [Pittsburg State University Department of Physics](#) to keep informed of happenings involving Physics at PSU.

Professor Recognized with Arts & Sciences Award

Each year the College of Arts and Sciences awards faculty for excellence in teaching, service, creative endeavor, and research. According to the general guidelines, “the intent of these awards is to recognize full-time faculty demonstrating evidence of significant accomplishments and excellence.” Dr. Cynthia Huffman was selected as the 2023 recipient of the Excellence in Teaching award. This was the third time that she has been recognized with the college teaching award (2003, 2016, 2023). She has also received the Excellence in Service award (2019).



Thanks for the Support!

A big thanks for donations made to PSU in support of the Math Department and its programs. These generous gifts have been used to support travel by students and faculty to conferences, as well as student scholarships. Recently, \$41,500 was awarded to undergraduate Math majors, \$12,120 to graduate Math students, \$7,000 to Computer Science majors, and \$16,000 to Physics majors.

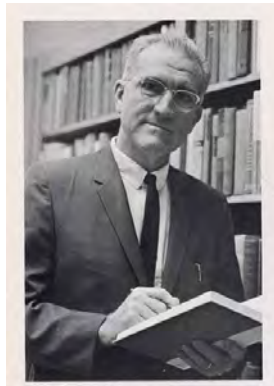
Pre-Images

The next two pages contain a collection of pictures from the “archives”. How many can you name and date? (Answers at bottom of next page.)

1



2



3



4



5



Picture 5: KME from the 1934 Kanza. Members are Robert Anderson, Jessie M. Bailey, John Beiser, Ernest Blick, Lucille Campbess, Vernice Ciradullo, L.E. Curtman, David Dickinson, Lowell Eubank, Signor Fink, Ruth Evans, Anna Fintel, Ruby Fulton, F. C. German, Harry Ger- man, Francis Gift, Merian Hair, John Harbison, Paul Harbison, R.W. Hart, Colleen Hawkins, John Herring, Lloyd Hessonng, W.H. Hill, Vivian Hummer, Glendon Huse, May Kriegsman, Floyd McCollister, Margaret Mckale, Mildred Martin, W.E. Matter, Howard Menne, Marie Monk, Esther Pease, Joe Pistochnik, Laverne Schmalz, F. Sellmansberger, Esther Sharpe, Daniel Shiel, J.A.G. Shirk, Sister M. Louise, Lynne E. Smith, R.S. Smith, Vincent Stevens, Flor- ence Stoskopf, Eugene Tims, Arden Todd, Edna Wasser, and Ernest Wood.

Picture 4: KME Ice Cream Social 2002, Keith Smeltz, Jenny (Bower) Pierce, Tim Pierce, Vic- tor Davis, Desmond Andrews, and Kyla Scarborough.

MO.
Dr. Cynthia Huffman as faculty members at the 1997 KME National Convention, Springfield,

Picture 3: Former Gorilla Gas Dr. Tim Flood, Dr. Bryan Dawson, Dr. Rochelle Beatty, and

Picture 2: J.D. Haggard, Math Professor and Associate Graduate Dean from the 1967 Kanza.

Picture 1: Mr. David Newcomb and Dr. Don Hight at the 2006 Math Department picnic.

Professor Honored with Mach Distinguished Service Award

by Dr. Scott Thuong, KME President Elect



The Mach Award, the most prestigious honor presented by Kappa Mu Epsilon, is bestowed biennially during the national convention to honor individuals who have demonstrated exemplary service to the society. This distinguished award is named in tribute to the late Dr. George Mach, who held key leadership positions within the organization from 1966 to 1987. Originating from Dr. Mach's exceptional tenure as National Vice-President, National President, National Past President, and National Secretary, the Mach Award has celebrated and honored exceptional individuals who have gone above and beyond in their commitment to the mission and vision of Kappa Mu Epsilon. Nominees for the Mach Award are sought by the National Council from chapters across the nation in a competitive selection process. This year, our very own Dr. Cynthia Huffman joined the ranks of the Mach awardees. The award was presented at the 46th Biennial Convention held in April at Molloy College in Rockville Center, New York.

In Dr. Huffman's own words:

"I am so touched and humbled to have been selected to receive the KME George Mach award, especially to be included in a list of such incredible past winners such as KS Alpha's own Harold Thomas. Harold is a great friend and mentor and encouraged me to get involved with KME as a faculty member. It has been such a joy and blessing to work with KME corresponding secretaries, executive council members, and students in promoting appreciation of mathematics and recognition of student achievements over the years."

Dr. Huffman served as our own Kansas Alpha Faculty Advisor for 13 years and Corresponding Secretary for 3 years. Additionally, she held national roles such as North Central Regional Director from 2001 to 2009, National Treasurer from 2007 to 2015, and National Historian from 2017 to 2021. Additional significant achievements include being the creator of the KME Facebook page and serving as the editor of the 90th Anniversary Edition of KME's History. Her invaluable contributions have made KME a stronger and more vibrant organization, and her legacy will continue to inspire future generations within KME.



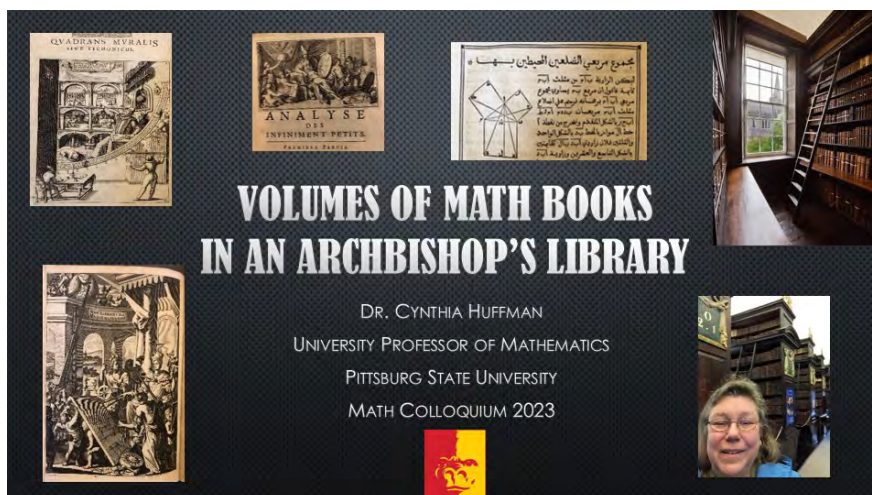
PSU Mathematics Colloquium Series

The Math Department has had a regular Colloquium Series since at least 1994. These lectures give the speakers an opportunity to share their research and the attendees a chance to gain new knowledge. To schedule a colloquium or for more information, contact Dr. Liu at yliu@pittstate.edu. The colloquia for the 2022-2023 academic year are listed below.

- ◆ Katherine Honeywell-Lynch, PSU and Joplin High School, *An Introduction to Elliptic Curves and their Application to Cryptography*, July 20, 2022, virtual
- ◆ Ty Covey, PSU, *Mathematics and Video Game Design: From Mathematicians to the Players*, July 25, 2022, virtual
- ◆ Dr. Cynthia Huffman, PSU, *A Mathematical Look at Ancient North American Pyramids*, September 8, 2022
- ◆ Jinal Chaudhari, PSU, *Recurrent Neural Networks*, December 9, 2022
- ◆ Paige Stainbrook, PSU, *Wallpaper Groups Portrayed in the Alhambra and Quilts*, April 7, 2023
- ◆ Dr. Cynthia Huffman, PSU, *Volumes of Math Books in an Archbishop's Library*, April 25, 2023
- ◆ Rylee Dennis, PSU, *The Zoo of Ph.D. Qualifying Exams*, April 28, 2023



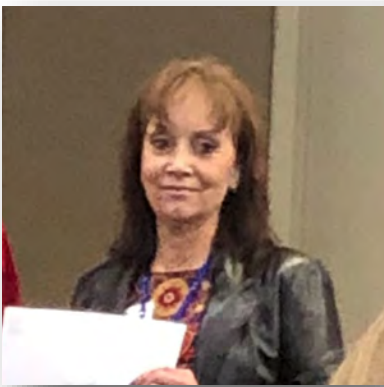
Rylee Dennis



PSU Math Honor Day

The 2022 annual PSU Math Honor Day was held on October 6. Students and teachers from area high schools were treated to presentations by PSU faculty, a planetarium show, and a luncheon. The featured lunch speaker was Mrs. Rebecca Newcomb Lomshek, (PSU Math MS & BSE) Art Teacher at Pittsburg High School. Faculty presentations included Computer Addition (Dr. Bobby Winters), Rational Trigonometry (Dr. Scott Thuong), CGI & Matrix Multiplication (Dr. Cynthia Huffman), Let's Play Set (Dr. Tim Flood), and Business Forecasting (Dr. Ananda Jayawardhana).

Dianne Kauth (Iola High School), Rachael Sachs (Girard High School), Paige Stainbrook (Carl Junction HS), and MaryJo Swann (Eudora High School) were recognized with Outstanding Teacher awards and are pictured below.



KSMAA Meeting

Pitt State mathematics faculty continue to be very active in the Kansas Section of the Mathematical Association of America (KSMAA). Dr. Tim Flood is Historian, Dr. Cynthia Huffman is Public Information Coordinator, Webmaster, and Newsletter Editor, and Dr. Scott Thuong is co-coordinator of the Kansas Collegiate Math Competition.

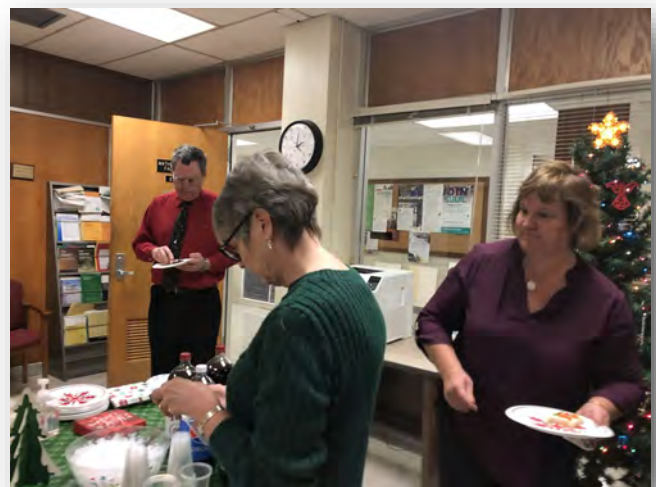
The 2023 KSMAA meeting was held at Bethany College in Lindsborg, KS on April 14-15. One team of three PSU students competed in the Kansas Collegiate Math Competition, held in conjunction with the KSMAA meeting. Students participating were Trenton Bandre, Amy Scott, and Xiaodi Xun. A presentation was given by Dr. Cynthia Huffman (*Rare Mathematical Books in Dublin*). Also in attendance at the meeting was Dr. Yaping Liu.



Pictures from the 2022 Fall Picnic



Pictures from the 2022 Christmas Party



Pictures from the 2023 Math Honor Banquet (Photo credit: Dr. Jayawardhana)



PSU Math Relays Continues

Around 800 students visited the PSU campus on April 4 to participate in the PSU High School Math Relays. The competition started in 1968 when math faculty, including Don Hight, Jerry Stein, and Bryan Sperry, came up with the idea of a math competition modeled after a track meet. The event, which for many years has been organized by Mrs. Terry Martin, gets Pitt State faculty, retired faculty, faculty spouses, alumni, and graduate and undergraduate students involved in welcoming the high school students to campus for a day filled with short individual events and some team relay events. It is also exciting that many of the high school teachers are also Gorillas and can share with their students where they went to college. Picture is thanks to Dr. Ananda Jayawardhana.



Dr. Coltharp Retires

Dr. Hazel Coltharp gave us a retirement party! Thirty years of service to the PSU Mathematics Department! (5/5/23)
Courtesy Dr. Ananda Jayawardhana.



Graduation Pictures



Graduation Dec 2022

Ty Covey



Graduation May 2023

Dr. Serif Uran and Isaac Humbard



Graduation May 2023

Amber Large and Rylee Dennis



Graduation May 2023

Dr. Ananda Jayawardhana
with Xiaodi Xun (left) and
Trent Bandre & family (right)

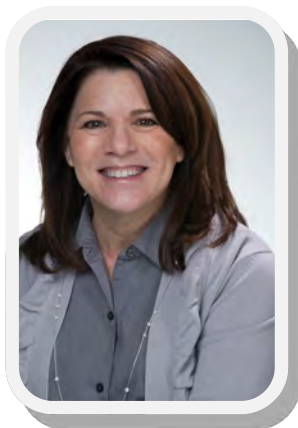


Arts & Sciences Reception for Graduating Students

Amber Large, Aaron Mosher, Rylee
Dennis, Amy Scott, Isaac Humbard



Faculty Updates - Math

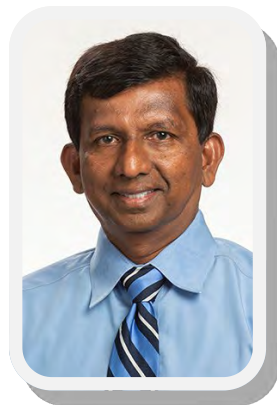


Dr. Karla Childs

This year marked 30 years that I have been in the Mathematics Department at PSU! My motivation and my passion continue to be teaching mathematics and supporting students as they follow their varying educational paths. In addition, my research remains centered on best practices in teaching and learning mathematics at all levels.

As always, I love working with the Graduate Teaching Assistants in our department. This year we revived the annual GTA ping pong tournament and dinner at my house where Dr. Thuong took the top prize. They are exceptional young adults with so much excitement for learning and for the future.

I'm looking forward to an awesome 31st academic year.



Dr. Ananda Jayawardhana

I am still actively involved as an Assistant Governor of Rotary District 6110. I am completing my last year as the past president of the Mu Sigma Rho Statistics Honorary Society. Dr. Susan Carlson and I will have a publication in *The CEA Critic*, publication of the College English Association. I am still active with the Tilford Conference on Diversity and the Faculty Senate. Finally, all my classes are face-to-face now.

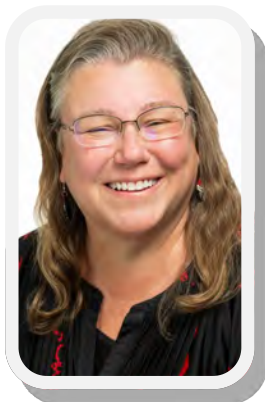


Dr. Yaping Liu

I do not have much to report, as I have had basically the same teaching assignments and service responsibilities this year as in last year. I am still the Colloquium Coordinator. If you have an interesting math topic to share with fellow mathematicians and would like to give a colloquium talk, please let me know. I have been the departmental Graduate Coordinator for 26 years, responsible for preparing and administering Master's Comprehensive Exams. We continue to produce about 5 high quality master's graduates each year.

I participated in a summer workshop on Modeling Inspiration for Differential Equations, and had spent much time to explore modeling scenarios to be used in teaching the differential equations class with the modeling approach. This year again I will be a table leader in the AP reading in June, managing about 10 readers in reading AP calculus. My family life has not changed much except my third grandchild was born last fall.

That's all for now. Hope to hear from you.



Dr. Cynthia Huffman

I can't believe it's already time to be writing updates for the newsletter. I was on sabbatical during the spring semester, so it especially flew by.

As is expected for professors, I split my work time among teaching, scholarly activity, and service. Teaching continues to be my favorite. I try to make learning mathematics fun and relevant for my students. Two teaching highlights this year were receiving the College of Arts and Sciences Excellence in Teaching award for the third time and being recognized at the national level with the KME George Mach Award.

In 2022, I had 4 peer-reviewed publications, 1 other publication, 3 more scholarly articles submitted and accepted, and another joint article and a solo translation submitted and under peer-review. Another joint article was requested to be reprinted in a Chilean journal. I presented at an international conference (accepted), a regional conference (by invitation), a state conference, and 2 PSU Math Colloquia. Continuing to conduct scholarly activity brings excitement to my teaching to encourage students to have a growth mindset and a desire to be lifelong learners. My sabbatical project was especially enjoyable. I received a research fellowship at Marsh's Library, one of the first public libraries in Europe, in Dublin, Ireland. This library is essentially unchanged since it opened in 1707. I immersed myself in Archbishop Marsh's personal collection, examining over 110 books on mathematics and applications of mathematics and taking over 4000 pictures of interesting pages. You can read my blog post at <https://marshlibrary.ie/marshs-mathematical-marvels/>. Following my fellowship, I joined a PSU Study Abroad trip of Ireland, England, and Scotland. Recently I returned from presenting my 336th professional talk at an international History of Math conference in Canada.

A few years ago I had a grant to write some Open Educational Resource (OER) materials. Since then I have continued writing OER materials and publishing them on PSU's [Digital Commons](#) and more recently, the international [OER Commons](#) repository. To date, the 30+ activities have had over 9,200 downloads in 132 countries. I am in the process of writing more activities based on my sabbatical research.

Service-wise at the state level, I continued (since 1996) as the public information officer/webmaster/newsletter editor for the Kansas Section of the Mathematical Association of America. I have been the only person to hold this position. Last year I unsuccessfully tried to step down. I was more successful this year. It has been an enjoyable 27 years serving the KS Section. At the national level, I am the Chief Editor of the Board of Editors for the MAA Classroom Resource Materials book series, having served on the board of editors an unprecedented 13 years (the typical time is 6 years). I also serve as the Secretary/Treasurer/Newsletter Editor for the MAA Special Interest Group on History of Math. Closer to home, I serve as an eLearning Academy online course reviewer, an online teaching College Coach, and the editor of this newsletter, along with being on various other committees.

I sure enjoy hearing what all of our alumni are doing, whether it be through Facebook, LinkedIn, or some other means (like a chance meeting at the Mall Deli!). It is wonderful to hear how well so many of our alumni are doing in their careers and personal lives. Please continue to keep in touch! Once a Gorilla, Always a Gorilla!





Mrs. Terry Martin

We hosted the Pitt State Math Relays on April 4. This year we had 48 schools and approximately 800 students, which are each up 20% from 2022. As always, we had beautiful weather so students could spend their down time outside. (I say “as always” because I don’t remember a single day that it rained for the Relays!)

The 54th Annual Pitt State Math Relays are scheduled for Tuesday April 9, 2024. However, I will no longer be the director. I have directed the Relays since 1991, 31 years. Yes, I know the math doesn’t add up, but we took 2 years off because of COVID.

I continue to serve as faculty advisor for Campus Christians and Chi Omicron Rho. I also continue to serve as a board member for Countryside Christian School, which is now a pre-school only.



Mr. David Newcomb

Being a full-time instructor in the Mathematics Department at Pittsburg State University continues to be a challenging and fulfilling experience. Preparing for the variety of courses that I teach (Mathematics for Elementary Education I, Calculus I, and Mathematics Education Seminar) keeps me extremely busy. In addition, in the spring semester I teach the Manipulatives and Technology in Secondary Education classes and the

PSU Ready College Algebra class at Colgan High School. All of the classes went very well this last spring semester.

My wife and I have continued some of our usual spring/summer activities. We have already worked on a few lawn mowers for ourselves and for friends. The garden is looking good with green beans, corn, potatoes, tomatoes, squash and strawberries. The new grape plants we planted last fall are looking good, also. We have been camping twice this spring and both trips were very enjoyable. We have been able to go on several bicycle rides around the area.

I hope students and faculty have a wonderful 2023/2024 academic year at Pitt State.

Best wishes to all.



Dr. Scott Thuong

This was my second year as Kappa Mu Epsilon president elect, and as such, I was responsible for organizing the 46th Biennial Convention. It was held at Molloy University near New York City. We had a strong turnout with about 14 student presentations and nearly 50 attendees. This was my first serious conference travel after the pandemic, and it was very refreshing. It was also a learning experience to organize a conference

nearly 1300 miles away.

We sent one team of students to the Kansas College Math Competition, this year held at Bethany College. While they did not place in the top 3, they performed better than many other teams, and most importantly, they had a great time.

This year I got to teach new courses: matrix algebra and Calculus II. It was also a treat to have enough interested students to teach topology during both the fall and spring semesters. This upcoming fall, I will offer Math 626 Data Structures and Algorithms for the very first time to our computer science students.

Dr. Bobby Winters



Bobby will be Associate Dean of the College of Arts and Sciences for one more year, after which he has decided to return to the classroom. He's been developing a new course in Mathematics for Programming and has been working with students in Computer Science in order to start a Computer Science club. As of this writing, he is planning to spend the last three weeks of May 2023 in Paraguay with his wife Jean where he will be teaching Elementary Statistics.





Dr. Serif Uran

Last year was my 19th year of teaching at PSU. Where did the years go? I have always enjoyed teaching introductory courses such as College Physics I and Engineering Physics II that shape students' minds and serve as background for their careers. Last year, I have made the jump to Open Education Resources (OER) for those classes. To my surprise, they worked out very well. As a new tool, I have also used the Harmonize discussion tool in my College Physics I class and it not only promoted a good engagement among students, but also gave me ideas as to what subjects needed to be covered in more detail. I love the engagement of the upper-level classes with physics majors as well. It is amazing to see the transformation of those students in their last two years at PSU. I have attended three thesis defenses this year and they always feel so refreshing with new research avenues explored by each student. We are transitioning into centralized advising and I will miss the interactions with students, but we will be involved in course selections as much as possible. I have attended a few professional development activities such as Road Map, Faculty Professional Day Workshop and OER training to refresh my knowledge and skills. In addition, I have also served in various committees at the college and department level, and performed physics program coordinator tasks.

In addition, I have been involved in scholarly research mainly in graphene, energy production and storage in the last few years. Graphene, which is superconducting in room temperature is one monolayer of graphite. The challenge here is obtaining a clean, large sheet of graphene. In the past, I have used liquid exfoliation of graphite to graphene by different solvent chemicals. We have successfully exfoliated graphite; however, the exfoliated pieces are small and harder to create a large area film. Currently, I am planning to use sintering effect on graphite in a high vacuum chamber to obtain a thin deposited graphene layer. The other experiment I would like to try is arcing of graphite with high voltage and see if there is any graphene deposition on a substrate. I can then study the deposited surface electrically and microscopically using 4-wire resistance and Atomic Force Microscopy. Another area of interest is to find alternative energy production systems beyond solar cells and wind turbines, such as electrostatically charged nanoparticles inside a fluid. This system can imitate gasoline in automobiles that rely on electricity to run.

Lastly, I have been promoted to "University Professor" rank last year. I am looking forward to the next seven years under this title.

Alumni Highlight

Where we “brag” on one of our former students!



The featured Gorilla in this edition of the math department newsletter is Dr. Richard LaNear. Dr. LaNear is a retired Professor of Economics at Missouri Southern State University. His hometown is Joplin, MO. He attended Joplin Junior

College, before transferring to the Kansas State College of Pittsburg (now known as Pittsburg State University), where he graduated with a BS in mathematics.

After graduation, Rich attended Army Officer Candidate School (OCS) and served active duty in Vietnam. He was awarded a Bronze Star and two Army commendation medals.

Next, he completed a PhD in Finance at the University of Mississippi in 1979. Dr. LaNear's first faculty position was at Murray State University in Kentucky, where he taught for three years before accepting a position at the University of Arkansas. With a desire to teach at a private university, Dr. LaNear became a faculty member at Mercer University in Macon, GA. He turned down several offers to return to MSSU, but then in 1987, he was offered an endowed chair at Missouri Southern - an offer that was too good to refuse.

During his 35 years of college teaching, Professor LaNear was a very popular instructor and known for being good with students, having high standards, and encouraging students to do their best.

Dr. LaNear appreciated his mathematics degree and found that it was helpful in obtaining a doctorate in finance. Although he found all of his Pitt State math courses good, his favorite was Advanced Engineering Math and his least favorite was Modern Algebra. Mathematics has also been helpful throughout his career and community service. For example, he used math to come to the aid of a group of Joplin investors who were losing money. By using calculus, he was able to evaluate the risk involved with certain investments.



When asked about advice for students, Dr. LaNear responded, “Students should not avoid a class because it’s hard. Take it because it’s the best class.”

Dr. Rich LaNear with Gus in the Overman Student Center on the campus of PSU.

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