



Pittsburg State University
College of Arts and Sciences

Special points of interest:

- Math Major Recognized as Teacher of Promise
- 2020 KME Regional Convention, Math Relays, and Math Honor Banquet were cancelled due to COVID-19 Pandemic.
- The number of math majors for the SP20 semester was 40 undergraduate and 8 graduate students.

Inside this issue:

Modeling contest	2
Student presents at National Meeting	2
Alum publishes in MAA Journal	3
Major Recognized as Teacher of Promise	3
Picnic Pictures	4
Pre-Images	5
Christmas Party	7
MOKAN pictures	7
Math on Facebook	8
Colloquium Series	8
Colloquia Pics	9
KME Pictures	10
Graduation Pic	10
Math Honor Day	11
Faculty Updates	12
Alumni Highlight	16

News from the Chair

What a semester! As I am sure you are well aware, a lot of changes occurred this spring due to the COVID-19 Pandemic. As you can see from the second item on the Special Points of Interest just to the left, many of our usual spring activities were cancelled. Math Relays were cancelled for the first time in our 50-year history. The KS Section of the Mathematical Association of America was not able to meet this spring. This was only the fourth time the meeting could not be held since the founding in 1915. The others were 1918 and 1919 when there was no meeting because of the war and 1945 when there was no meeting due to travel restrictions. That gives you an idea of the gravity of the situation this past spring.

We were also scheduled to host the North Central Regional Convention of Kappa Mu Epsilon. We had to cancel the convention along with our annual student awards banquet.

On Friday, March 13th



(yes it was a Friday the 13th), the university announced that classes would be dismissed for the week prior to spring break to allow faculty time to transition all of their courses to “online or other alternative teaching methods” beginning immediately after spring break. The faculty and staff across campus worked diligently to accomplish this task. Some of the faculty in the department, including myself, had never taught online. It was a special challenge for our graduate teaching assistants who were thrust into both teaching and learning online. The guiding principle across the university was to minimize any negative impacts on our students. From what I saw, that certainly was accomplished through the hard work of our students, faculty, & staff.

Even with all of the adversity, it was a proud time to be a Gorilla.

After our rocky spring, we are all looking forward to next fall. The university has announced that all facilities at Pittsburg State University will reopen to students and the public on July 7 and that fall classes will begin as planned on August 17th with minor modifications to the end of the academic calendar.

On a separate note, it was with sadness that I accepted the resignation of Dr. Leah Childers. As I reported last year, she was on a leave of absence to pursue the possibility of working for Eureka Math and she has decided to work full-time in this capacity. We wish her the best in her new career but we will certainly miss her.

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.

GET INVOLVED

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

PSU participates in new Modeling Contest

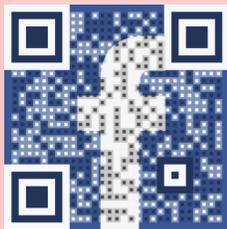
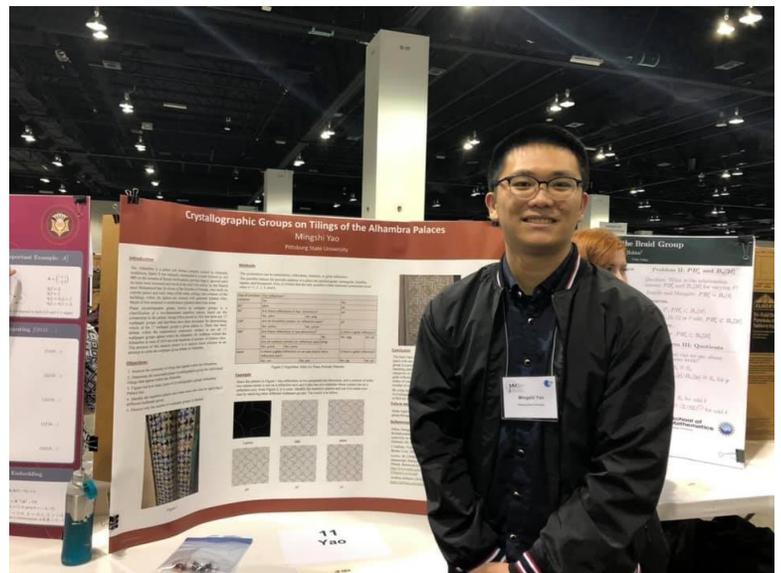
The SCUDEM SIMIODE Challenge Using Differential Equations Modeling is a student team event held at local sites around the world that began in 2017. In 2019, PSU had a team of three students participating for the first time, coached by Dr. Yaping Liu. The PSU Math Department was assigned by the organizer as a local host. Students and faculty members served as judges. The PSU team, consisting of Levi Humbard, Danielle Mouer, and Minshi Yao, developed a model for the interactions of large cabbage white butterflies and parasitic wasps, and then addressed the introduction of a predator, such as birds, to their model.



Student presents research at national Joint Math Meetings

In January 2020, Mingshi Ian Yao attended the 2020 national Joint Mathematics Meetings in Denver, Colorado. JMM is billed as the largest math conference in the world. Mingshi was accepted to present his research in the Undergraduate Research Poster Session. He conducted his research on planar crystallographic groups appearing in the Alhambra Palace in Granada, Spain, under the supervision of Dr. Cynthia Huffman.

Mingshi started off at PSU as an exchange student from China. He enjoyed his time at Pitt State so much, that he returned as a transfer student and graduated from PSU in May 2020 with a Bachelor's Degree in Mathematics. He is continuing his studies in mathematics as a graduate student at the University of Oklahoma.



Join us on Facebook:
Pitt State
(Kansas)
Math Alumni

Upcoming Events

2020 Fall Semester Starts August 17, 2020

PSU High School Math Honor Day, Oct 15, 2020

PSU Homecoming, Oct 17, 2020

PSU Fall Break, Nov 23-24, 2020

Joint Mathematics Meetings, Washington, DC, Jan 6-9, 2021

2021 Spring Semester Starts Jan 19, 2021

KSMAA, Bethany College, Lindsborg, KS, March 26-27, 2021

PSU Math Relays, April 6, 2021

KME National Convention, University of Central Missouri, Warrensburg, MO, Date TBA

PSU Math Banquet, April 18, 2021

Alumnus Publishes in *The College Mathematics Journal*



Dr. Bryan Dawson (BS 1986, MS 1987) had an article “A Calculus Limits Unified and Simplified ” appear in the November 2019 issue of *The College Mathematics Journal*. An eprint can be found at this link: <https://www.tandfonline.com/eprint/CUHXJUXFJDPPRKDSXIBY/full?target=10.1080/07468342.2019.1662706> .

Dr. Dawson was the highlighted alumnus in the PSU Mathematics Department 2017 Newsletter. He is a University Professor of Mathematics at Union University in Jackson, Tennessee.

Math Major Recognized as Teacher of Promise

Morgan Panovich was recognized at the Kansas Awards Luncheon in Topeka as a PSU College of Education Spring 2020 Teacher of Promise. A math education major from Shawnee, KS, Morgan did her student teaching at Girard High School. During the summer of 2019, she participated in the Queen’s University’s Education for Transformation summer program, which “provides students with a unique immersive academic and cultural experience while pursuing their academic interests.”



"My experience in the Mathematics program at Pittsburg State has been amazing. All of the professors within the program have provided me with opportunities to grow in both my knowledge of math and how to be a great educator. I am so excited to enter the teaching world with all of their support and the experiences they have provided!"

SENIOR

MORGAN PANOVICH

Mathematics Education Major
Hometown: Shawnee, KS

Annual PSU Math Picnic Pictures



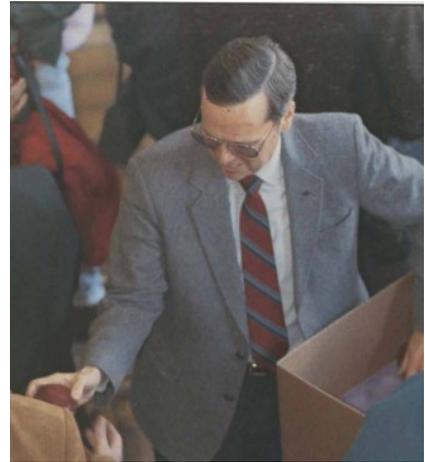
Pre-Images

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.)

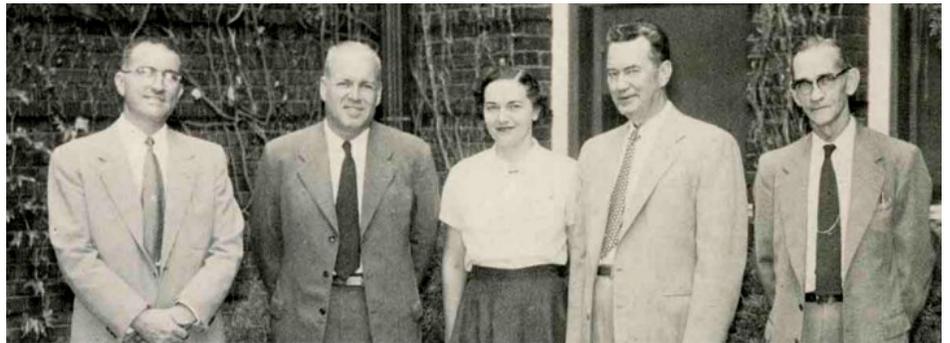
1



2



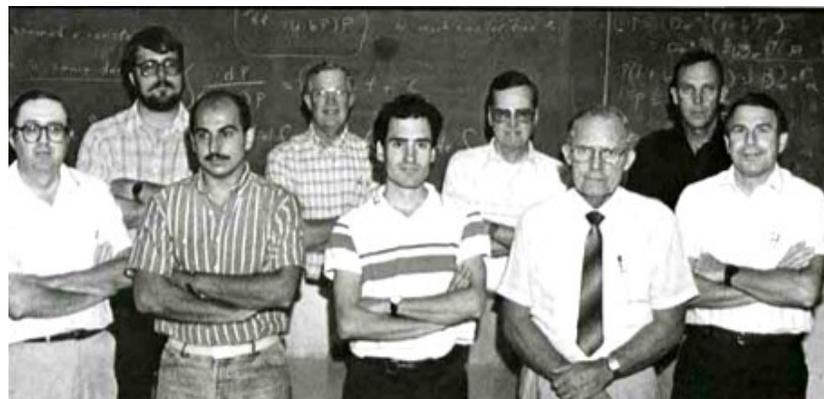
3



4



5



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. For summer 2020, we awarded over \$5000 in graduate scholarships and for the 2020-21 academic year we awarded \$42,300 in undergraduate scholarships and \$4000 in graduate scholarships.

6



Picture 1: Mr. David Newcomb as a student in the 1968 Kanza yearbook.
 Picture 2: Dr. Forrest Coltharp handing out apples at Apple Day, from the 1990 Kanza yearbook.
 Picture 3: Math Faculty, 1955 Kanza, J.D. Haggard, Ron Smith, Helen Kriegsmann, R.W. Hart, F.C. German.
 Picture 4: Math Alumni at 2009 Homecoming, Karim Bekha, Casey Kuhn Becker, Keith Smeltz, Ernie Vaughn, Jelinda Smith Keeling, Erin Wells Kellogg
 Picture 5: 1990 Kanza picture of Math Faculty. Front Row: Gary McGrath, Nabil Husni, Linden Willis, Bryan Sperry, Elwyn Davis. Back Row: Bobby Winters, Harold Thomas, Forrest Coltharp, Don Hight.
 Picture 6: Kappa Mu Epsilon (Math Honor Society) from the 2010 yearbook. (Row 1) Keith Smeltz, Emily Krysztof Burgoon, MaryJo Swann, Karalyn Gibbs, Emily Walters, Zhirou Liu; (Row 2) Shauna Wächter Rooks, Dr. Yaping Liu, Christine Wilson, Krysten Fraley Clay, Hannah Himes, Dr. Cynthia Huffman, Dr. Ananda Jayawardhana, Mr. David Newcomb, Seunghwan Joo; (Row 3) Dr. Tim Flood, Mark Neely, Luke Henke, ???, Holden Kraus, Kyle Marcotte, Ashley Reavis, Matt Haffner (see last page for Matt as Alumni Highlight.)

2019 Math Department Christmas Party



Photo credits: Dr. Ananda Jayawardhana



Pictures from MOKAN (Affiliate of the National Council of Teachers of Mathematics) meetings (courtesy of Dr. Ananda Jayawardhana)



PSU Mathematics on Facebook

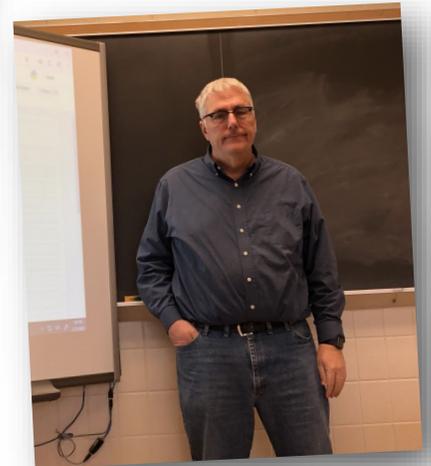
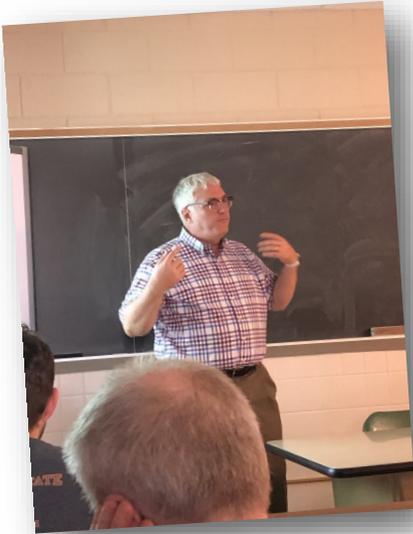


If you are a Facebook user, there are two ways that you can stay connected with the PSU Mathematics Department. One way is via a group with a focus on teaching called *Gorilla Math Teachers*. It is a great source of information including teaching ideas and job openings. It also provides a community for 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?) New in the past year to the alumni group are scanned pictures from the mid to late 1990's. Many other photographs have been added as well. 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.

PSU Mathematics Colloquium Series

The Math Department continues to hold a colloquium series. These lectures give the speakers an opportunity to share their research and the attendees a chance to gain new knowledge. The series has been going since at least the Fall of 1994 with a colloquium book which speakers sign. To schedule a colloquium or for more information, contact Dr. Liu at yliu@pittstate.edu. The colloquia for the 2019-2020 academic year are listed below.

- ◆ Dr. Cynthia Huffman, PSU, *Easter Island: Moai, Mapping, and Math*, August 29, 2019
- ◆ Dr. Bobby Winters, PSU, *Using Python for Scientific Purposes*, October 1, 2019
- ◆ Dr. Yaping Liu, PSU, *CoCalc, Eng. Calc and Resequenced Calc*, October 8, 2019
- ◆ Mr. Jordan Bailey, PSU, *Python Basics and Usage for Statistics Applications*, October 29, 2019
- ◆ Dr. Robbie Custer, PSU, *Bayesian Prediction Bounds in Accelerated Life Testing: Weibull Model with Inverse Power Law Relationship*, December 5, 2019
- ◆ Ms. Brenda Thenikl, PSU, *The History of Complex Numbers*, December 5, 2019
- ◆ Dr. Cynthia Huffman, PSU, *Ludolph Van Ceulen: A Piece of the Pi Story*, February 4, 2020
- ◆ Dr. Bobby Winters, PSU, *Anaconda, Jupyter Notebooks, and Data Science: A Brief Introduction*, February 27, 2020
- ◆ Dr. Ananda Jayawardhana, PSU, *Bootstrap Confidence Intervals*, March 10, 2020
- ◆ Mrs. Ashley Spencer and Ms. Laura Phillips, PSU, *Transitioning to an Online Classroom - An Informal Discussion*, March 18, 2020



Colloquia Pictures

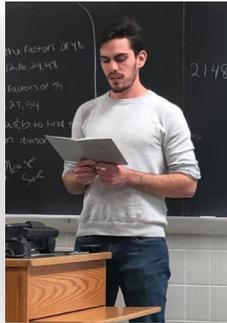
Pictures from some of the colloquia.

Top row: Dr. Bobby Winters, Easter Island items for Dr. Cynthia Huffman's colloquium, Brenda Thenikl

Second row: Robbie Custer, Jordan Bailey, Dr. Bobby Winters

Third row: Dr. Ananda Jayawardhana

Pictures from KME initiation



New Initiates

- 2145 Lukas Amershek
- 2146 Devin Elliott
- 2147 Elizabeth Myers
- 2148 Nicole Smith

Graduation Pic (December 2019)



Left to Right: Dr. Jayawardhana, Faith Montemurro, Laura Phillips, Robbie Custer, Brenda Thenikl, Maddi Webb, Dr. Flood, Dr. Huffman, Tim Clausen, Mr. Newcomb

PSU Math Honor Day

The 20th annual PSU Math Honor Day was held on October 17, 2019. Seventy-two students and teachers from 17 high schools were treated to presentations by PSU faculty, a luncheon, and a planetarium show. The featured lunch speaker was alumnus Mr. Dusty Peterson, FSA, MAAA, CERA, Actuary, Security Benefit, Topeka, KS, who discussed the career of being an actuary.

Ryan Darst (Shawnee Mission West High School) and Christine Staab (Louisburg High School) were recognized as the 2019 Outstanding Veteran Secondary Math Teachers while Dale Brauer (Pleasanton High School) received the Outstanding Novice Teacher award.

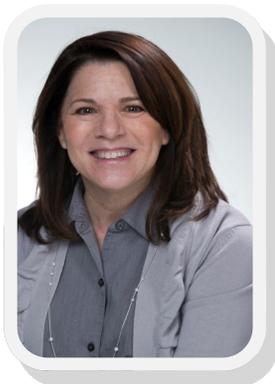


Above: The teaching awards recipients—Ryan Darst, Christine Staab, and Dale Brauer.

Below: Dr. Bobby Winters providing the welcome from the university, invited luncheon speaker Dusty Peterson, and PSU graduate student Michael Deguerre providing musical entertainment at lunch.



Faculty Updates



Dr. Karla Childs

The highlight of my year was being selected by students for honorary membership in the Phi Eta Sigma Freshman Honor Society and being invited to be recognized at their ceremony. As always, I love teaching, coordinating our annual Math Honor Day, and working with the Graduate Teaching Assistants.

I'm also working on the HLC QI steering team at the request of the Provost for the purpose of designing, implementing and evaluating a two-year Quality Initiative. We've completed a beta semester so look for our program roll out this Fall - PASS, Peer Assisted Study Sessions!

On a personal note, Vivian Margaret, my granddaughter, will be turning one year old. Where does the time go? We are doing a Zoom birthday for her! My how things have changed!!



Dr. Hazel Coltharp

No re-reading past newsletters except last year's. As hundreds of thousands of teachers shifted to totally on-line instruction this spring as a result of school closures, we joined their ranks and kept reminding our student teachers in the field and one intern, that will be student teaching in the fall, that, "this is invaluable experience; what would you do if you were the classroom teacher?". Little did we know when we committed to providing iPads for them to use a few years ago, how valuable they would be in this new age! They learned so much about preparing on-line delivery and Zooming as a student and as a teacher - we all did! We were disappointed that we weren't able to help the National Council of Teachers of Mathematics celebrate their 100th year in existence at their annual meeting in Chicago, and it was disappointing to miss being able to visit with our returning grads at Math Relays, both annual events in April. We are looking forward to returning to face-to-face this fall, and we have our official OAGAAG masks ready! We hope everyone is safe and stays healthy.



Dr. Bobby Winters

Dr. Bobby Winters is managing to keep himself busy and stay out of trouble as he continues as Associate Dean of the College of Arts and Sciences. Currently he is Director of PSU in Paraguay; Acting Chair of the Department of Physics; Acting Chair of the Department of Chemistry; and Director of the Polymer Chemistry Initiative. In his spare time he is continuing to learn Python. He is doing a new introduction to data science class in the fall.



Dr. Cynthia Huffman

Wow! What an unusual school year with the COVID-19 pandemic. I was so proud of my students as they adjusted to major changes in the middle of the spring semester. It was also exciting to learn that my application to renew the rank of University Professor for another seven years was approved.

My work time continues to be divided among teaching, scholarly activity, and service. Teaching is my favorite and I try to make learning mathematics fun and relevant for my students. I continue to teach a wide variety of courses from general education through graduate level. Typically that includes 4 preparations, along with pro gratis extras— honors projects, masters problems, independent studies, and writing to learn courses. For various reasons, last spring, all 4 of my classes had at least one student needing to take the course online. So, all that time I spent creating lecture videos last year paid off and allowed me to spend more time communicating with students and moving assessments and other activities online when campus was closed to face-to-face courses this March.

For scholarly activity this year, I continued several research projects - writing articles about “Math Treasures at the Linda Hall Library” for the online journal *Convergence* <http://www.maa.org/press/periodicals/convergence/mathematical-treasures-at-the-linda-hall-library>, translating articles by Euler from Latin to English for the Euler Archive, and a Latin translation of marginalia in a 16th century book for the Linda Hall Library. Dr. Scott Thuong, Dr. Ximena Catepillan of Millersville U of PA and I have an article in progress based on the mapping expedition of Easter Island that Dr. Catepillan and I participated in last summer. Before things got disrupted, I had a talk accepted for a history of math conference in Scotland. Plans are to reschedule for next year.

A couple of 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](#). To date, the 20 activities have had 907 downloads in 71 countries.

Service-wise at the national level, I am the Chief Editor of the MAA Classroom Resource Materials book series (after serving as an Associate Editor for 8 years), the National Historian for Kappa Mu Epsilon, an editor for a new journal called Euleriana, and the Secretary/Treasurer/Newsletter Editor for the MAA Special Interest Group on History of Math. At the state level, I continue as the public information officer/webmaster/newsletter editor for the Kansas Section of the Mathematical Association of America. Closer to home, I am a member of the PSU Higher Learning Commission committee, an eLearning Academy online course reviewer, editor of this departmental newsletter, and a member of several other committees.

I sure enjoy hearing what all of our alumni are doing, whether it be through Facebook, LinkedIn, or some other means. (In case you didn’t know, there is a Facebook group called “Pitt State (Kansas) Math Alumni”.) 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 and to stop by the department anytime you are in town. Once a Gorilla, Always a Gorilla!



Dr. Ananda Jayawardhana

I am developing a course to help teachers teach AP Statistics and this course will be offered in July 2020. I will participate in grading AP Statistics exams online in late June. I serve as the vice-chair of the Committee on Archives and Historical Materials of the American Statistical Association. I still serve as the past chair of the Mu Sigma Rho National Statistics Honorary Society. I recently was promoted to the rank of University Professor.

Dr. Yaping Liu



During the past year I taught classes that I usually teach each year. In September 2019, I organized a team of three PSU students to participate in the international modeling competition SIMIODE Challenge Using Differential Equations Modeling and served as the coach for the team. This was the first time we participated in this annual event. The model proposed by the team won the Outstanding Award, the highest rating. In October I did a presentation on Math Honor Day for visiting high school students. The title of the talk is Life of π . Then on October 30, 2019, I gave a colloquium talk in the mathematics department, titled CoCalc, Eng. Calc, and Resequenced Calc. Three related topics were discussed: the current effort to re-sequence the calculus classes for STEM students, the recently developed engineering calculus 2 class, and the software SageMath that is being used in the class.

The Covid-19 pandemic obviously impacted the life of everyone significantly. Some of the planned activities for the spring and summer this year were cancelled. One silver lining, however, was that we were required to change gear midsemester and deliver all classes online, and within two-week's time, I learned how to use Zoom and other tools to deliver course content remotely. The software and the experience gained will be very useful when I teach online classes in the future.

This year the number of graduate students in the math department went down a little. From August 2019 to June 2020, five graduate students successfully finished their research and passed the master's comprehensive exams. This is lower than the annual average of seven during the last two decades.

Mrs. Terry Martin



Well, Math Relays began in 1969 and has continued every year since. Except in 2020. Like many events, Math Relays was cancelled in mid-March. If all goes well, we will hold Math Relays on Tuesday, April 6, 2021.

I taught my classes this spring through Zoom. I felt so blessed to already know my students and their voices, so we still had wonderful discussions even through the distance. Like many other instructors at all levels, I had to learn a variety of technologies. Not my ideal way to teach, but I think it worked.

This spring I was honored with a pin for 30 years at Pitt State.

I still serve as faculty advisor for Campus Christians and Chi Omicron Rho. I am also a member of the board for Countryside Christian School.



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 (Quantitative Reasoning, Mathematics for Elementary Education I, Calculus I, and Mathematics Education Seminar) keeps me extremely busy. In addition, I teach two evening courses (Computer Information Systems and Introduction to Programming) for the Accounting and Computer Information Systems Department.

Last semester was completely different from any other unless you only taught online classes. The change to online classes in the middle of the spring semester was not difficult for me. However, some of the students were in an educational environment for which they were not entirely prepared.

My wife and I did continue some of our usual summer activities, just had to be more to ourselves. We completed a few projects around the home, including cutting down unwanted trees and brush around our pond and in the pasture, doing some dirt work by the pond and moving and splitting the wood. This summer we worked on a few lawn mowers for ourselves and for friends. We helped at our son-in-law's Tailwind Cyclists bicycle shop. We took care of a nice garden with green beans, potatoes, tomatoes, okra, and squash. The family reunion was not held this summer and we have not been able to take any camping trips so far. Hopefully, we will get in a few trips this fall. We did go on several bicycle rides around the area. We will be doing some home repairs soon.

I hope everyone has a wonderful 2020/2021 academic year at Pitt State.



Dr. Scott Thuong

Aside from my usual teaching duties this year, I had the opportunity to design and teach a course on Lie groups this Spring. Roughly speaking, these are groups that one can also view as geometric objects. We used concepts from algebra, analysis, and topology, all in one course. Of the 5 students in the class, 4 graduated and entered Ph.D. programs, and I hope this was a nice sort of "capstone" course for them.

With COVID-19 forcing me to teach the remainder of the spring semester online, I must say that I miss my chalkboard! The pandemic also caused the cancellation of the KME regional convention that we would have hosted in the spring, as well as the Kansas Collegiate Math Competition that I usually coordinate.

On a personal note, I've been playing quite a bit of table tennis this last year and volunteered to be faculty advisor of the newly created Ping Pong Club at PSU.

Alumni Highlight

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

Dr. Matthew Haffner was born in Virginia Beach, VA, and lived on the East Coast for 14 years, before going to high school in Pleasant Hill, MO. His parents still live there, and much of his family is still in the Kansas City area. His wife, Kristin, is from Tulsa and they have two kids: Silas, 3 years old, and Elsie Mae, 1 year old.

Matt earned a BEd at PSU in 2012 with a double major in Math & Geography. He then completed an MS and a PhD in Geography at OK State in 2014 and 2018, respectively. Currently, Dr. Haffner is an Assistant Professor at the Univ. of Wisconsin - Eau Claire in the Dept of Geography & Anthropology.

Despite being trained as a geographer in graduate school, virtually everything Dr. Haffner does is grounded in mathematics and statistics. His research focuses on a subdiscipline called “Spatial Data Science” which is a combination of spatial and geographic knowledge, computer programming, and statistics. He uses this lens to study cities, transportation, and how people perceive space and place.

In graduate school Matt was selected as his department’s Most Outstanding First Year PhD Student and the Most Outstanding First Year Master’s Student. He has been a Featured Researcher through the High Performance Computing Center at OK State and won a variety of teaching awards in graduate school.

Dr. Haffner’s advice for students: “There are so many things I want to share with students, but lest this turn into a long monologue, I’ll try to keep it brief!

1. I would encourage students to take their education seriously. This sounds corny coming
2. Pursue the things that are interesting to you. In college I started reading books about nuclear power and the nuclear weapons complex, which led me to interview for a PhD program in Energy Science and Engineering at Univ of TN. My fascination with places and cities led me to declare a minor in geography not thinking I’d do anything with it. I didn’t end up going to Tennessee, but I’ve been doing geography ever since. Some of these things end up being life altering; others don’t. Either way, enjoy the ride!
3. Explore the possibility of using your math and statistics skills in another discipline (while still keeping your math major, of course!). Declare a minor or a second major in something like geography, fashion, finance, or chemistry. I can’t even begin to tell you how badly every graduate department on every campus I’ve ever been to is looking for talented students with a strong math background. This can open a wealth of opportunities that you wouldn’t expect.
4. Keep up with your classmates & professors after you graduate!”



Dr. Matthew Haffner & family



from a professor, but your education really does matter. Focus on learning the material rather than just getting good grades. I still have distinct memories of lectures in Probability and Statistics, Calculators in Teaching Math, History of Math, and plenty of others. It really counts in the long run!

Mathematics Department Pittsburg State University College of Arts and Sciences

224 Yates Hall
Pittsburg State University
1701 S. Broadway
Pittsburg, KS 66762

Phone: 620-235-4400

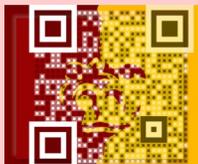
Fax: 620-235-4429

E-mail:

tflood@pittstate.edu

<https://>

www.pittstate.edu/math/index.html



The PSU Mathematics Newsletter is published once a year. The newsletters are archived on the department webpage at <https://www.pittstate.edu/math/index.html>

If you have anything to be included in the newsletter, please send it to cjhuffman@pittstate.edu

Join us on Facebook:
Pitt State (Kansas) Math Alumni

