



Special points of interest:

- PSU Math Alum receives Meritorious Achievement Award
- Statistics poster wins national contest
- Dr. Scott Thuong joins the department
- The number of math majors is currently 62 undergraduate and 10 graduate students.

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Pittsburg State University
College of Arts and Sciences

News from the Chair

It is great to be kicking off a new semester. With all of the construction on campus, it is difficult for students to get from one building to another but there is certainly an excitement in the air. It is causing an inconvenience for everyone but should be well worth it when everything is completed.

As I reported last time, we were saddened by the departure of Dr. Childers; however, we have continued to move forward. Last year we hired Ms. Vanessa Peach as a one-year replacement while we conducted a national search for a tenure-track replacement. We were very fortunate in that search and were able to hire Dr. Scott Van Thuong. Dr. Thuong grew up in Joplin and his father, Dr. Tran Van Thuong, was a faculty member at MSSU. Scott received his undergraduate degree from MSSU and went on to the University of Oklahoma where he received his



PhD this past May. Dr. Thuong brings a love and enthusiasm for mathematics that will have a positive impact on our students. More information about Dr. Thuong appears elsewhere in this newsletter.

Our retired faculty stay active in a variety of ways in the department and around the community. Dr. Kriegsman, Dr. Davis, and Mr. Sperry all come back in the spring to help with Math Relays. In addition, Dr. Kriegsman continues her active participation in Kiwanis. Dr. Davis regularly visits the department and occasionally serenades us with a ukulele solo. He and his wife

Karen celebrated their 50th wedding anniversary last fall. Dr. McGrath and his wife Fran also recently celebrated their 50th wedding anniversary. You can find pictures of the Davises and the McGraths at each of their receptions below. Dr. Thomas and his wife Alice attend social functions within the department when they are not traveling. Dr. Forrest Coltharp and his wife Barbara remain active in their church and enjoy cheering on the Gorillas and Royals. The department has been blessed by a long line of outstanding faculty over the years and we are very proud of our current faculty who continue that tradition.

I hope you enjoy the rest of this newsletter and reading about the happenings within the department. If you have any news about happenings in your life, please feel free to let us know and if you are ever back on campus please drop in to pay us a visit. We would love to hear what's new in your life.



Within the past year, both Dr. Elwyn Davis and his wife Karen and Dr. Gary McGrath and his wife Fran celebrated 50th wedding anniversaries.

GET INVOLVED

**Want to help students
attend conferences?**

**Contact Dr. Tim Flood
(tflood@pittstate.edu)
for information about
supporting student
travel.**

Graduate Students Present at the Joint Mathematics Meetings

Each January the Mathematical Association of America, the American Mathematical Society, and several other mathematics professional organizations have a conference referred to as the Joint Mathematics Meetings or JMM. JMM is the largest annual mathematics meeting in the world and in 2014 it was held in Baltimore, MD.

PSU usually has mathematics faculty attending and/or presenting at JMM each year and in 2014, they were joined by two graduate students. Jean Coltharp presented "The Relationship between Math Learning Communities and Student Retention" and "Building Relationships with Student Activities in Math Learning Communities" with Dr. Karla Childs, based on her Masters Problem Research, and Danielle Frey presented "Preparing Teachers in a Tablet World" with Dr. Hazel Coltharp, also based on her Masters Problem Research.

Artwork Donated to Math Department

Walking into the math faculty office area in Yates Hall one of the first things you'll notice is a striking mathematical piece of art made up of 50 individual paintings. Created by mathematics alumnus Rebecca Newcomb Lomshek, the piece was part of a juried show in Sacramento, CA at 20th Street Art Gallery (the owners are now retired and the gallery is closed) in which chosen artists had 50 days to complete 50 paintings. Two goals motivated the painting, which is named *Symmetry in Color*. One goal was to show symmetry, and the second was to use the color spectrum. The piece is dynamic. Each individual square painting can be relocated and/or rotated a multiple of 90 degrees. The department is most appreciative of the beautiful donation.



**Join us on
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Pitt State
(Kansas)
Math Alumni

Kansas Alpha Represents at KME National

PSU is home to the Kansas Alpha Chapter of the national mathematics honor society, Kappa Mu Epsilon. The tradition of Kansas Alpha being well-represented at the national level continued with undergraduate student Sarah Nistler serving as a presentation judge at the 2014 KME National Convention. The meeting was in Jacksonville, AL. Sarah was accompanied by a former student (Holden Kraus), and two faculty members (Cynthia Huffman and Vanessa Peach).

The KME tradition began at PSU when Kansas Alpha was the third chapter to be installed in KME. Retired math faculty, Dr. Harold Thomas, served as KME National Historian, Vice-President, and President, and won the prestigious KME

George Mach Distinguished Service Award in 1997. Cynthia Huffman is currently on the National Executive Council and will soon complete serving her second term as National Treasurer.

Kansas Alpha has a Facebook group called "Pitt State KME Math Honor Society" where information about the monthly local meetings and other events is posted. Feel free to send a Facebook request to join the group.



Sarah Nistler, Dr. Cynthia Huffman, Holden Kraus, and Vanessa Peach at the 2014 KME National Convention. The 2015 convention is scheduled for April 9-11 in Daytona Beach, FL.

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 currently holds two offices: Historian and Coordinator of Section Liaisons, while Dr. Cynthia Huffman is Section Governor and Public Information Coordinator. Also, Dr. Jeremy Wade recently became co-coordinator of the Kansas Collegiate Math Competition. PSU Math alumnus DeeAnn VanLuyck of Fort Scott Community College is Chair Elect and will be hosting the 2015 KSMAA meeting at FSCC on March 27-28, 2015.

The 2014 KSMAA section meeting was held March 28-29 at Emporia State University. Keynote speakers were Ron Wasserstein (Executive Director of the American Statistical Association and past president of the national math honor society KME) and Steve Kennedy (MAA Senior Acquisitions Editor). Several PSU faculty members and eight students attended the meeting. One undergraduate student, Ashlee Hashman, and one graduate student, Jessica Booth, gave presentations.

2014 Faculty Presentations:

- ◇ Ananda Jayawardhana, *Hand-on activities to recognize discrete probability distributions*

- ◇ Cynthia Huffman, *Mathematics of the Native Alaskan Tlingit Indians*
 - ◇ Yaping Liu, *The Chinese Remainder Theorem*
- 2014 Student Presentations:
- ◇ Jessica Booth, *M.C. Escher and his work in Hyperbolic Geometry*
 - ◇ Ashlee Hashman, *How the Simplex Algorithm Saved My Wedding*



Above: Part of the Pitt State group waiting for the opening invited address at KSMAA2014. Below: Most of the PSU group after KSMAA2014.



Upcoming Events

PSU Homecoming, Oct 11, 2014

KATM, Ft. Hays State University, Oct 13, 2014

PSU Fall Break, Oct 16-17, 2014

Joint Mathematics Meetings, San Antonio, TX, Jan 10-13, 2015

2015 Spring Semester Starts Jan 12, 2015

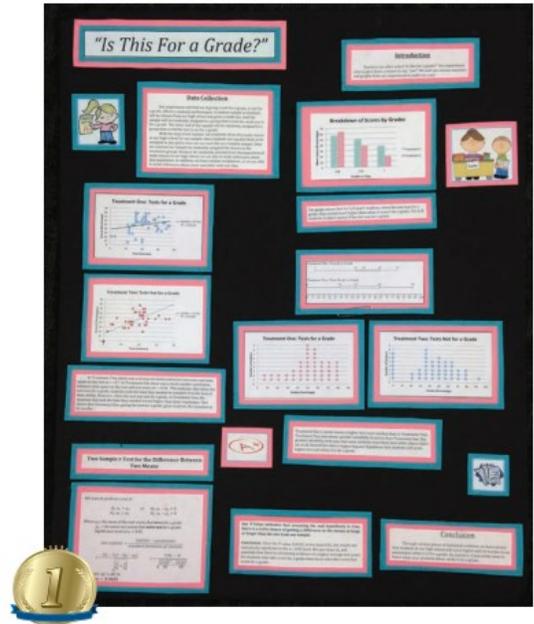
KSMAA, Ft. Scott, March 27-28, 2015

KME National Convention, Daytona Beach, FL, April 9-11, 2015

PSU Math Relays, April 14, 2015

Statistics Poster Wins National Competition

Since 2008, the PSU Math Department and the MOKAN Affiliate of NCTM have sponsored a statistics poster contest for high school students. The top three winners are then entered in a national American Statistical Association contest. This past year, the top local winner received first place in the national contest and the local 2nd place winner received honorable mention at the national level. The first place poster was "Is This for a Grade?" by Nazhath Sulthana and Sadie Wallner of Joplin High School, teacher PSU alumnus Adam Bennett. Receiving honorable mention was "Social Media" by Josie Kaderly and Isabella Hagen of Lamar High School, teacher PSU alumnus Melissa Fanning. For more information on the poster contest contact Dr. Ananda Jayawardhana or visit http://www.pittstate.edu/departement/math/stats_poster.dot. The picture is of the first place poster from <http://magazine.amstat.org/wp-content/uploads/2014an/AugustAmst2014.pdf>.



Kansas State Collegiate Mathematics Competition

On March 29, 2014, six Pittsburg State students participated in the 9th Kansas State Collegiate Mathematics Competition at Emporia State University. Minh Bui, Zachary Bowen, Georgette Searan, Rachel Sachs, Ashlee Hashman, and Jason Fenske were among the 29 students from Kansas colleges and universities that competed in the three hour long exam.

While the PSU competitors did not bring home any awards this year, they performed admirably. Five of the six participants will be able to participate next year as well, so we have great potential going forward.

The competition began in 2005, and, with the exception of 2013, has been an annual event held in conjunction with the Kansas Sectional Meeting of the Mathematical Association of America. More information on the competition can be found at <http://pittstate.edu/departement/math/competition/>.



Mathematics Alumnus Receives 2014 PSU Meritorious Achievement Award

Brigadier General Peter A. Gallagher assumed his current position as the deputy commanding general of Network Enterprise Technology Command (NETCOM) in July 2012. He served as the NETCOM acting commanding general from August 2012 through April 2014.

Gallagher was commissioned as a distinguished military graduate from the ROTC program at Pittsburg State University, where he received a BSEd in mathematics and physical education in 1986. His military schooling includes: the Signal Officer Basic and Advanced Courses; Combined Arms and Services Staff School; Command and General Staff College; Air Force Institute of Technology Teleprocessing Operations Course; Airborne School; Jumpmaster School; Military Freefall School; the Survival, Evasion, Resistance and Escape School; and the 1st Special Forces Operational Detachment-Delta Combat Skills Course. He is a graduate from the National War College, with a master's degree in national security strategy.



Gallagher's first assignment was in the 3rd Infantry Division, Wurzburg, Germany, from 1987-1990, serving as the division telecommunications officer and later platoon leader and executive officer. Over his career he has commanded soldiers at the platoon, company, troop, battalion, squadron, and brigade levels. From 2000-2006, he commanded soldiers deployed in various combat zones. He commanded the Defense Information Systems Agency Central Field Command from 2007-2009. In 2009, he served as the deputy director of the Pakistan Afghanistan Coordination Cell in the Pentagon. A year later, he deployed to Kabul, Afghanistan, as the international security and assistance force director, CJ-6. He returned to the Pentagon as the executive officer for the chief information officer/G-6 of the Army from 2011-12.

Gallagher's awards and decorations include two Defense Superior Service Medals, two Legions of Merit, three Bronze Star Medals, three Defense Meritorious Service Medals, three Meritorious Service Medals, the Joint Service Commendation Medal, the Army Commendation Medal, two Army Achievement Medals, the Global War on Terrorism Expeditionary Medal, the Global War on Terrorism Service Medal, the Afghanistan Campaign Medal, the Iraq Campaign Medal, the NATO ISAF Medal, three Joint Meritorious Unit Awards, two Valorous Unit Awards and two Meritorious Unit Citation with 1 Oak Leaf Cluster.

Gallagher and his wife, Donna, (BSEd, PSU, '86) have been married for more than 29 years and have two sons. Matthew, 26, is a former sergeant with 10th Mountain Division and currently a senior cadet at PSU who will be commissioned in May. Jacob is a sergeant in the Army, currently serving in the 82nd Airborne Division at Fort Bragg, N.C. Graduated from Pittsburg State University in 1986 with a degree in Mathematics & Physical Education.

(Story and picture from PSU webpage <http://www.pittstate.edu/news/psu-honors-three-alumni-for-career-achievements>. Used with permission.)

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.)

**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 2014 and the 2014-15 academic year we awarded 57 undergraduate scholarships for a total of \$41,600 and 10 graduate scholarships for a total of \$9,504.



5



Picture 1: 2007 Graduation. Front row left to right: Krystal Troutman, Lauren Kaminski Talley, Heather Haselrick Johnson, Casey Kuhn Becker. Second row left to right: John Cauthon, Christy Baker, Dan Cor-mode, Ernie Vaughn, Shelley Sarwinski.

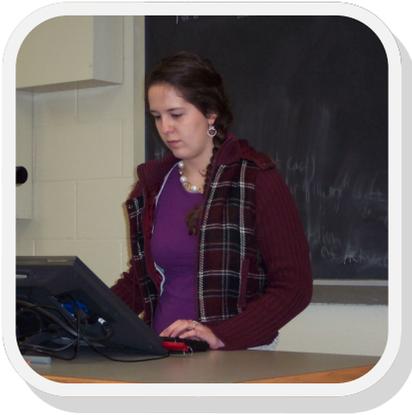
Picture 2: Dr. Helen Kriegsmann, department chair, 1972 Kanza yearbook photo.

Picture 3: Computer equipment in the basement of Yates Hall, 1966 Kanza yearbook photo.

Picture 4: October 1998 ready to head to the 2nd annual Missouri Algebra Weekend, Mandy Fritz, Catharine Ellis, Michelle Baier, Jennifer Laswell, Jeremy Dill, and Dr. Cynthia Huffman.

Picture 5: KME 1979 National Convention photo taken in front of the PSU Student Union on stairs that were recently removed as part of the Student Center renovation. The convention was hosted by the Kansas Alpha chapter. See if you can find: Mr. Bryan Sperry, Dr. Harold Thomas, Dr. Gary McGrath, Dr. Elwyn Davis, Dr. Helen Kriegsmann, and Mrs. Annabelle Loy. If you recognize anyone else in the photo, please let Dr. Huffman know (cjhuffman@pittstate.edu).

KME Pictures



Ashlee Hashman presenting *Mathematics in "The Land of the Morning Calm"* at a local KME meeting. Included were pictures of her study abroad trip to South Korea.



2014 Spring Kappa Mu Epsilon Initiation Ceremony.

Pitt State Math Relays Pictures



Mr. Bryan Sperry always helps at Math Relays.





Congratulations to Dr. Cynthia Huffman for receiving the 2014 PSU Outstanding Faculty Award! She is pictured here with other recipients Dr. Tom Baack (Management and Marketing) and Dr. Darren Botello-Samson (Department of History, Philosophy and Social Sciences).

Putnam Exam

On December 7, 2013, three Pittsburg State mathematics students participated in the William Lowell Putnam Competition, a mathematics competition for American and Canadian undergraduates. The Putnam Exam is an extraordinarily difficult contest. Held on the first Saturday in December, it consists of two three-hour sessions, one in the morning, and one in the afternoon. During each session, students attempt to solve six problems. These problems are then graded out of 10 points. The median score for the exam is usually 0 or 1 points.

Jason Fenske, Charles Harrison, and Zachary Bowen represented Pittsburg State this year. While we were unsuccessful in defeating the likes of Harvard, MIT, or Cal Tech for the top spots, these students are to be commended for attempting such a challenging competition. Jason and Zachary will be able to compete again this December, while Charles graduated and is pursuing his masters degree in Florida.

More information on the Putnam Exam can be found at <http://math.scu.edu/putnam/>.

Graduation Pictures

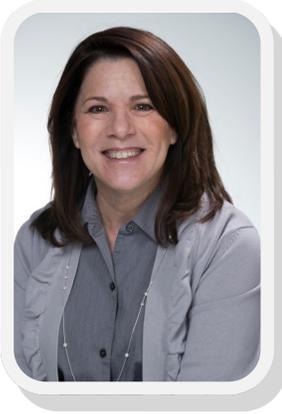


Jean Coltharp, Dr. Hazel Coltharp, Tim Walker, Danielle Frey, Dr. Tim Flood, Aaron Flood, Dr. Cynthia Huffman, Dr. Jeremy Wade



Bader Alshammari and Adriansyah Putra.

Faculty Updates



Dr. Karla Childs

In January I attended the Joint Mathematics Meetings in Baltimore, MD with graduate student Jean Coltharp. We presented “The Relationship between Math Learning Communities and Student Retention” and “Building Relationships with Student Activities in Math Learning Communities” based on Jean’s Masters Problem Research. As always, I enjoyed coordinating our annual PSU High School Mathematics Honor Day and we were honored to have alumnus, Jason Knight of Wal-Mart Corp, return to give the luncheon talk last year. Additionally, I was very busy visiting area schools as a Mathematics Teacher Education (MTE) Partnership faculty in a second round of an NSF-funded project entitled “Geometry Assessments for Secondary Teachers.” The study involves MTE Partnership faculty around the country collecting data on secondary math teachers’ geometry knowledge for teaching. Thanks to those teachers who participated!

My sons both live in Los Angeles now. Tyler works in music management and Andrew is looking for a job in the film industry.



Dr. Tadek Dobrowolski

My sabbatical leave lasted almost 6 months. During that time I learned a lot of new math. The greatest achievement of the sabbatical leave was a mini-workshop that I organized. The main speaker was John Pardon, a young shining star in topology. He is just a grad student at Stanford. But during his undergraduate studies he solved the so-called Hilbert-Smith Conjecture in dimension 3. This one result makes him a math genius. When I invited him to present this result at the mini-workshop in Warsaw, Poland, he replied: *with pleasure,*

that would be my SECOND visit to Warsaw, Poland; a year ago, I took part in computer science competitions that were held in Warsaw. So he does many exciting things; his father is a known math professor at Princeton, I guess.

The teaching part was also present during my sabbatical part. I taught two courses, ODE and PDE. This was a very interesting experience for me. It showed me that our PSU students were as good as those abroad, and they had better learning habits, which the other lacks. Anyway it is good to be back at PSU.

Have a nice 2014/15 academic year.

Mathematics student Rachael Sachs spent the summer doing mission work in India.





Dr. Hazel Coltharp

“Common Core”. . . As if it weren’t hard enough, already, to be the life of the party as a math teacher! We continue to be a major producer for area high school and middle school math programs in the area, and principals are still calling us in August, desperate for math teachers. Our graduates in math education can find a job if they’re ready to teach, and sometimes move! We have several Gorilla Math Teachers entering the work force in area districts and will have quite a contingency of Gorillas helping to open the new \$100+ million high school in Joplin after its time split between Northpark Mall and the former Memorial High School building as a result of the 2011 tornado. STEM careers are still a hot topic, and Common Core is still on everyone’s e-mail list and Facebook, YouTube, and Twitter pages. It continues to be an exciting, and a little scary, time to be going into mathematics teaching! Of course many of our graduates choose to stay on and teach for us in the department as graduate assistants.

Since our last newsletter in 2013, we, as a department, are still trying to keep up with technology that we’re seeing our graduates using! We’ve jumped in with both feet by providing iPads for all of our BSE majors and minors during their Techniques and Clinical Experience semesters, and those enrolled with us for their student teaching (majors and the Psychology majors certifying) will keep theirs through their student teaching semester. It’s not that we get a kickback from Apple, we just needed to select one to use for their exposure. As I mentioned in our last newsletter, our Provost has graciously funded several grants allowing faculty to utilize iPads with their classes, and having received one last year, I think we’re starting to get the kinks worked out after a couple of semesters. It helps to have so many expert and friendly graduates upon whom I can call for help! Our hope is to allow our students to incorporate their use, feel comfortable with using them, and then be prepared to utilize whatever technology their district has chosen for one-to-one implementation (or just for the teachers’ uses).

On a personal level, time marched forward – my daughter, Jean, finished her master’s and successfully applied for and presented her master’s research at the national MAA meeting with her advisor, Dr. Childs. Their research on PSU’s Math Learning Community was very interesting. My advisee, Danielle Frey, also was successful in getting her application accepted, and she and I followed Jean and Dr. Childs to Baltimore in January a few days later to present Danielle’s and my experience incorporating iPads into the classroom. Jean is off to teach in the Math Department at Missouri Southern in Joplin – we decided she went from being a Gorilla Gal to a Lion Lady (I’ll be using that in my Christmas letter too!). She also has been accepted into the PhD program in Mathematics Education at UMKC. Again, not saying that she’s a chip off the old block, but she will be the second “Roo” in the family. Our son, Benjamin, will be a senior at Carl Junction High School, where he went to state, last year for the third year in drums and the second year in tennis. He’s hoping to repeat again this year. I think his sister has convinced him that it really is “okay” to stay close to home and the “old folks” for the wonderful experience at PSU – he’s considering mathematics teaching as well. My husband is still at Crowder College, which has educated us both to the value of post-secondary education and “best fit” for all students. It’s a wonderful resource for students in southwest Missouri!

Dr. Huffman asked us for our submissions weeks ago (smart lady), and I just remembered it with a gasp – scary how bad the memory is getting! I received my “official” recognition (I chose a pin) of my 20 years at PSU, and I still absolutely love my job and the campus. There’s so much change, but I so enjoy running into former Gorillas and reminiscing about all the things that are a permanent part of PSU. Please continue to send us your students, relatives, and friends as math majors because we can’t do it without them. Remember, if you’re a Gorilla Math teacher, join us on Facebook – I love stalking (I mean reading about) all of our former students!



Dr. Cynthia Huffman

The start of an academic year is such an interesting time. We have said goodbyes to our graduates and are excited for them to be starting a new chapter in their lives. We get to hear from returning students about their summer activities. And we welcome new students who are eager to begin their college studies. This year one of those new freshmen is my son. He's going to be majoring in Plastics Engineering (I've been hinting a math minor goes well with that) and playing in the Prides of the Plains marching band.

Since the last newsletter I continue to balance my work time among teaching, scholarly activity, and service. It was a great thrill to be surprised with the PSU Outstanding Faculty Award in the spring. My father had also received the award when he was an accounting professor. I love my job and working with such wonderful students and colleagues! I continue to teach History of Math, Abstract Algebra, Linear Algebra, and the graduate Algebra I course each year, along with whatever other courses Dr. Flood assigns for me to teach. In the spring, my Mathematical Software course for pre-service teachers was part of the PSU iPad project, and this fall, I'll be using iPads with the graduate Applied Algebra course.

The summer was a busy time for scholarly activity. I found out that a paper co-authored with history professor Dr. Chris Childers of Benedictine College on Napoleon and Mathematics and Egypt has been accepted for publication. For several years, I've been working on a project to translate one of Euler's papers from Latin to English and I was finally able to complete the translation this summer. I also started working on a new history of math research project. In addition, I was asked for permission for another online journal to re-publish part of an article on Maya Geometry co-authored by myself and Dr. John Diamantopolous of Northeastern State University which was originally published by the peer-reviewed online MAA journal *Convergence*.

This is the last year of my second four-year term as National Treasurer for the mathematics honor society Kappa Mu Epsilon. I've enjoyed being on the National KME Executive Council and encouraging undergraduate students in their studies of mathematics. I'm also over halfway through my term as Governor of the Kansas Section of the Mathematical Association of America. Other KSMAA Governors from PSU were Dr. Harold Thomas (1973-76) and Dr. Ron Smith (1958-61). Another office I hold for KSMAA is the public information officer/webmaster/newsletter editor. This year starts my second term as a member of the Board of Editors for the MAA Classroom Resource Materials series. Typically we are sent a book manuscript to review every four to six weeks. It takes a lot of time, but I feel it is a privilege to serve on a national board, plus it is an important job to decide what gets published and what does not, and to guarantee the quality of materials published by the MAA. In addition, I have found some of the manuscripts very interesting and have learned a lot of new things that can then be passed on to benefit PSU students in the classroom. Closer to home, I am a member of the Steering Committee of PSU's eLearning Academy, whose mission is to provide professional development to PSU faculty for designing quality online courses, and I have been serving as an online course reviewer for PSU.

I love hearing what all of you are doing, whether it be through Facebook 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

This year three students who took statistics classes went to graduate school in statistics. One student in actuarial science did a summer internship in an insurance company. The new course I developed for mathematics education majors is getting better over the years. Probability and Statistics class size has become smaller and will be offered as only a fall course. Two of my former graduate students Sungwook Kim and Ningning Wang completed PhDs in Statistics during the last 12 months.

I have published one paper with my former graduate student Yang Song. I am a co-author of another publication with several biologists which was published in spring 2014. I attended two conferences, one in Kansas City and the other in Boston. In Boston, I made a research presentation.

I will chair the Planning Committee of the 2014 state-wide Tilford conference. I have been elected to the vice-president of the national statistics honorary society Mu Sigma Rho for 2014-2017. I have been elected to the chair of the Council of Chapters Governing Board of the American Statistical Association for 2016. I will serve the term 2015-2017 as chair-elect, chair, and past chair.

It is our pleasure to see how our former students excel in their chosen fields and progress in life. Please keep in touch with letters, cards, emails and/or Facebook.



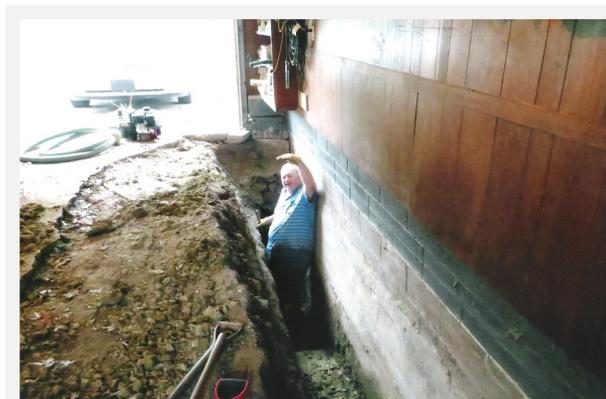
Mr. George Kaemmerling

I still continue to show support for our student athletics. I attended many games. I believe that our players do better when the fans cheer so I cheer, especially at volleyball matches and softball games. We sure could use your help cheering.

Each year I have some special Pitt State shirts made. I often wear one of these shirts when I travel out of town to help spread the word about Pittsburg State University. For the past several years I have been to the Women's College World Series Division I

fast pitch softball tournament in Oklahoma City. There I walked around the field displaying my Pitt State shirts. Usually more than 8,000 people attend each game. The glitter split face ones seemed to get the most attention. Some people have even taken pictures of the shirts.

I was out of high school (Fort Scott) for seventeen years before I was able to pursue my Bachelor's Degree. Many of our students have decided to return to school to earn their degrees. It can be done, and the sooner the better. A college degree does make a difference.



Mr. George Kaemmerling put math to work solving a real world problem this summer.



Dr. Yaping Liu

Time flies, or as Confucius once said: It flows like a river, never ceasing day or night. So it's time for the newsletter again. There have been some changes in my life and work during the past year, the biggest of which is probably that my younger daughter graduated from college and found a job in DC. This means that I'm done with making "family contributions" to college education costs. What a relief!

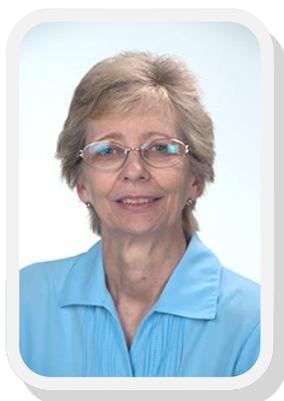
My teaching schedule changed a little bit. In spring 2014, I taught Discrete Structures for the first time. It immediately became one of my favorite classes to teach, although I won't be lying if I say that all classes are my favorite. It's so much fun to talk about sets, propositions, logic, mathematical induction, proofs, counting techniques, etc. I was glad that three students did honors projects with me in that class. I worked hard to find good research topics for them to work on, but they worked hard to get the job done without much help from me. Wonderful students.

Another change in teaching is that we have adopted a new calculus textbook (Thomas's Calculus, 13th ed). I chaired the Calculus Book Selection Committee in finding this replacement for the Larson book that we have been using for years. The new book is packaged with an online learning software MyMathLab. There have been concerns in the past about whether students can learn calculus online. But we believe that the students will benefit from a combination of the traditional face to face instruction and the rich learning tools and resources included in the online system. In addition, students don't have to buy a hard copy of the book any more. This will save them a lot of money.

We are still doing well in getting graduate students going through the pipeline. Since last summer, 10 students have finished their course work and research project, passed their comps, and received their master's degree. This includes one student who did his research with me last spring.

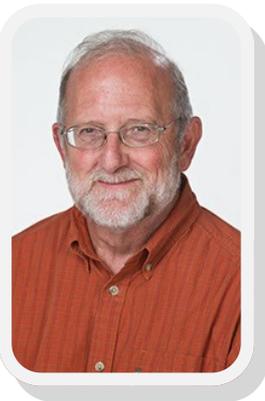
I continue to write reviews for the mathematical database Zentralblatt MATH. I also served as a referee for a few mathematical journals in the past few months. At the Spring KSMMA meeting, I gave a talk titled "The Chinese Remainder Theorem". It's not about difficult math. Instead, I discussed the cultural roots of this theorem in China. When I was a young teenager working on a farm in the countryside during the Cultural Revolution in China, I actually played games with other kids using this theorem.

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



Mrs. Terry Martin

I continue to teach Elementary Statistics, Matrix Algebra, and Calculus, and to direct the Pitt State Math Relays. I enjoy hearing from former students (hint, hint). I also continue to serve as faculty advisor for Campus Christians and as a board member for Countryside Christian School.



Mr. David Newcomb

Last semester marked seven years that I have been a full-time instructor in the Mathematics Department at PSU. I continue to believe that the students are the heart of PSU and they keep everything and everyone active.

All four of our children attended PSU and this semester our oldest granddaughter is one of the new freshman at PSU. So, as is the case for many families, the Gorilla tradition continues.

This summer my wife and I continued some of our standard activities. We did have a nice garden with green beans, potatoes, tomatoes, and peppers. But the hot weather at the end of summer has taken a toll on the corn and okra.

My wife and I spent quite a bit of the summer working at the local bike shop. Our son-in-law has been behind in repairs, so we have learned some bike repair procedures. Plus, we got to help put on three state championship races for the Kansas Cycling Association.

We were able to enjoy some short vacation trips to regional favorite locations: Branson, Fall River, Dodge City, and Gore. We generally try to visit one of our daughters in St. Louis, but didn't get a chance to travel there this summer. Maybe a Fall Break trip to St. Louis will be planned.

The work is sometimes challenging, but it is always a pleasure to be in the Math Department. It is inspiring to come to the department each day and see my daughter's example of a combination of mathematics and art on the office area wall. Mathematics is boundless.



Dr. Scott Thuong

In May I graduated from the University of Oklahoma, and I am very excited to join the department this fall. It is great to be living in the Four State Area again, having been raised in Joplin. I am not a stranger to Pittsburg. Growing up, my family would take frequent trips to Pittsburg, and I have very fond memories of playing for hours in Lincoln Park.

This year I had my first article "All 4-dimensional Infra-solvmanifolds are boundaries" published in the journal *Geometriae Dedicata*. I will continue to learn mathematics and conduct research.

This summer I was accepted into Project NExT and spent the week of August 4th in Portland for the Project NExT workshop and MAA Mathfest, where I happened to meet Dr. Huffman. Project NExT has been a great resource so far. Highlights included a minicourse on teaching elementary statistics and learning about undergraduate research from Dr. Joe Gallian. This semester I will be teaching Quantitative Reasoning, Elementary Statistics, and Calculus I. After a long summer, I am looking forward to getting back in the classroom, meeting new faces, and performing all duties assigned by the department!



Dr. Jeremy Wade

Greetings again from the end of the hallway. It is the end of July, and so it is time to try to remember what I've been doing for the past seven months and utilize whatever remains of my non-technical writing skills to communicate this to you.

Well, one new undertaking this year was co-coordinating the Kansas MAA Undergraduate Mathematics Competition with Dr. Mat Johnson of KU. This event is guided by two axioms: 1) there are not enough math tests, and; 2) math tests are too easy. So we wrote another math test, made it very difficult, and let students take it at the annual Kansas Section of the Mathematics Association of America (KSMAA) meeting in March. The top scoring teams and individuals receive rewards. We had quite a good turnout this year, and are looking forward to organizing the next competition in 2015.

Pittsburg State sent 6 students to the competition, several of whom have been participating in the Pittsburg State Problem Solving Group on Wednesday evenings. This group works on challenging problems, such as Putnam Exam problems, or problems from the American Mathematical Monthly, in order to prepare for the KSMAA competition and Putnam Exam. I've been co-organizing this group with Dr. Dobrowolski, and it's been a pleasure working with these talented students.

I've been teaching the usual courses - Calculus II, Numerical Analysis, Linear Optimization Models (which one student used to lower the cost of her wedding!), Fourier Analysis, and Linear Methods in Analysis. I've also been the department representative at Faculty Senate and have been fairly active in PSU-KNEA. I'm also working on some research on orthogonal polynomials on Sobolev spaces on the unit ball, if you're into that sort of thing.

I was also granted tenure and promoted to Associate Professor.

That's about all from the end of the hall! See you next time you need to refill the paper in the printer.



Dr. Bobby Winters

After seven years of being half-time math/half-time assistant dean, I've been converted to full-time administration as associate dean of the College of Arts and Sciences. I will still be teaching three classes a year in the Department of Mathematics, but the bulk of my time is spent in Grubbs Hall rather than Yates.

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

Michelle Baier is the featured alumna for this newsletter. Originally from Holcomb, KS, Michelle has two degrees from PSU: BS in math in 1995 (Summa Cum Laude) and MS (4.0) in math in the spring of 1997.

Michelle’s career path started at PSU as a part-time instructor/assistant track coach in the fall of 1997. Then in the fall of 1999 she went to Truman State University as a full time assistant track coach and an instructor in their math department. While at Truman, she coached several MIAA performers and All-Americans before moving back home to western Kansas in 2005. She taught math at Garden City High for 4 years and coached everything from volleyball, to basketball and track. As a track coach she coached 4 all-state performers. In 2009 she moved to her old high school in Holcomb where she is currently a math teacher, volleyball coach, and track coach. As a track coach, she has coached 46 all state performers and 3 state champions. She is also the KNEA president and District Curriculum Council Chair. Michelle uses math every day in her life to teach her classes and instill concepts in the bright minds of students of the future.

Michelle is an award-winning teacher, receiving the Holcomb District Teacher of the year award in 2012, and in 2013-14 she was a Crystal Apple Award Finalist, a Finney County award for outstanding teachers.

Currently, she uses a flipped model of teaching in her classroom and gives presentations all over western Kansas to teach other teachers how to implement this instruction model in their classrooms. In these presentations she not only teaches how to flip their classrooms but how to use the technology and sound teaching practices that go along with it.

Michelle is also a new teacher mentor, helping with new teacher orientations including how to implement technology, the common core standards, teaching strategies, and curriculum maps in their classrooms. She loves her job and wouldn't change what she does for anything.

On a more personal note, Michelle is a foster parent and currently has three beautiful children, ages three, four, and fourteen. She has had up to five children at a time. Her children have really made a huge difference in her life and made her realize the importance of relationships.

With her hobby of weightlifting, Michelle made it to the Olympic Trials in 2012 and has been a Master's Weightlifting Record Holder in the Snatch, Clean and Jerk, and Total in three different categories. She was the gold medal winner in the American Open weightlifting championships and also won 3rd in the snatch at the national championships and was given her medal by Arnold Schwarzenegger.

Quoting Michelle, “I really enjoyed my time at PSU and would say that those were some of the best times in my life!! I would tell students to get involved in as many things as they can and find a major/field that they will enjoy because they will be working for the rest of their lives. They need to make sure that this field is something that they can be happy in forever because forever is a really long time. :) The last thing is that being successful in math is not about being the best or the brightest, it is all about hard work and studying! How much do you study?”



Michelle Baier and below Michelle is pictured competing in the 2012 National Championships.



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