



Special points of interest:

- Video of Mr. Sperry goes viral
- Dr. Jay elected as National Officer
- Drs. Winters and Huffman receive teaching awards
- 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

The fall semester is getting off to a great start. Most of the construction on campus is wrapping up and it is exciting to have the new spaces on campus. The newly re-dedicated Overman Student Center is a wonderful addition to the campus. Walking through the building it is hard to believe it is the same building. The entire building has been brought up to modern standards and it is very impressive.

We did have a little renovation in Yates Hall this summer as well. They replaced all of the interior doors opening into the hallway. This was done more for safety than aesthetics. With the changes to the HVAC system a few summers ago it was now possible to replace the old doors that had louvers with solid fire doors. This should make it much safer for people to exit the building in case of a fire. Although the change did not do much to improve the overall ap-



pearance of the building it is great to know that it is much safer. A total renovation of Yates Hall is high on the university's priority list but will only happen if funds are identified, and with the current budget situation in Kansas, that will likely be a while.

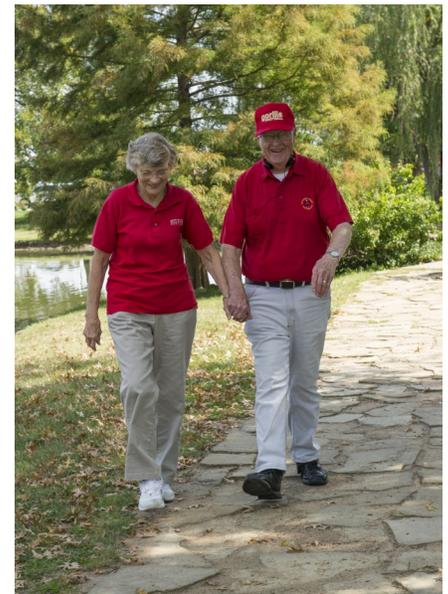
As I read through this issue of the department newsletter, I reflected on a truly outstanding year. As highlighted, our students, faculty, and alumni have excelled in a variety of areas. We had students and faculty present at local, regional, and national conferences. Our faculty have received a variety of

awards and recognitions and several serve as national officers in various professional organizations. Several former students returned to share their experiences and the highlights of their careers. I congratulate our faculty and all our students, both current and former, and look forward to another great year.

I hope you too 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.



Bettye Jo Haggard, widow of former math professor Dr. J.D. Haggard, passed away on March 26, 2015 - See more at: <http://www.legacy.com/obituaries/morningsun/obituary.aspx?n=bettye-jo-haggard&pid=174501154&fhid=25026>



Retired math professor Dr. Harold Thomas and his wife Alice on their way to a home football game. Photo courtesy of Carla Wehmeyer, Senior Photographer, PSU Athletics.

GET INVOLVED

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

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

Dr. Jay elected to National Office

Ananda Jayawardhana, a professor in Pittsburg State University's Department of Mathematics, was recently elected vice president of Mu Sigma Rho, the national statistics honorary society. His three-year term began on July 1.



Jayawardhana was instrumental in the establishment in 2012 of the Kansas-Western Missouri chapter of the American-Statistical-Association-affiliated MU Sigma Rho national statistics honorary society, which includes Pittsburg State University, Kansas State University, the University of Kansas, the University of Kansas Medical Center, Emporia State University, Washburn University, the University of Missouri-Kansas City, and the University of Central Missouri.

Mu Sigma Rho's purpose is to promote and encourage scholarly activity in statistics and the recognition of outstanding achievement among students in eligible academic institutions

Dr. Winters Honored

Congratulations to Dr. Bobby Winters, University Professor of Mathematics and Assistant Dean of the College of Arts and Sciences. Dr. Winters was recently one of nine PSU faculty recognized by the Faculty Athletic Council and Intercollegiate Athletics for continued support and dedication to Pitt State student-athletes. Photos below courtesy of Carla Wehmeyer, senior photographer, PSU Athletics.



(Right) President Steve Scott congratulating Dr. Bobby Winters at the presentation of the award during the Feb 14 PSU Women's Basketball Game.

(Below) Dr. Winters along with other recipients of the award.



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 Georgette Searan serving as a presentation judge at the 2015 KME National Convention. The meeting was in Daytona Beach, FL. Georgette was accompanied by a former student Holden Kraus, and faculty member Cynthia Huffman.

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.

Dr. Thomas won the prestigious KME George Mach Distinguished Service Award in 1997. Dr. Cynthia Huffman just completed 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. There is a Facebook page for national KME as well.

The Kansas Alpha Chapter of KME is very grateful to Dr. Thomas for his support for student travel to conventions.



Holden Kraus, Georgette Searan, and Dr. Cynthia Huffman at the 2015 KME National Convention. The 2015 convention was 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, Dr. Cynthia Huffman is Public Information Coordinator and just completed a term as Section Governor, and Dr. Jeremy Wade is co-coordinator of the Kansas Collegiate Math Competition. PSU Math alumna DeeAnn VanLuyck of Fort Scott Community College is Chair of KSMAA and hosted the 2015 KSMAA meeting at FSCC on March 27-28.

Keynote speaker at the 2015 KSMAA meeting was Jenna Carpenter (First Vice President of the Mathematical Association of America). Eight PSU faculty members and nine students attended the meeting.

2015 Faculty Presentations:

- ◇ Ananda Jayawardhana, *Schematic Box Plots and Outliers*
- ◇ Cynthia Huffman, *Archimedes' Secrets Revealed*
- ◇ Scott Van Thuong, *Wallpaper Groups and Their Generalizations*

2014 Student Presentations:

- ◇ Savanna O'Toole, *Solving Number Puzzles Using Gröbner Basis*
- ◇ Srividhya Balaji, *Katapyadhi System: An ancient Indian system of Encoding*
- ◇ Minh Bui, *Time Series Analysis in American air passengers*



Alumna DeeAnn VanLuyck hosted the 2015 KSMAA meeting



Upcoming Events

**PSU Homecoming,
Oct 3, 2015**

**PSU Fall Break,
Oct 8-9, 2015**

**KATM, Maize, KS, Oct
16, 2015**

**Joint Mathematics
Meetings, Seattle, WA,
Jan 6-9, 2016**

**2016 Spring Semester
Starts Jan 11, 2016**

**KSMAA, Ft. Hays,
April 8-9, 2016**

**KME Regional
Convention, TBA**

**PSU Math Relays, April
12, 2016**

Student Presents at National Joint Math Meetings

The largest annual mathematics conference, the Joint Mathematics Meeting or JMM, during which several mathematics professional organizations, including the American Mathematical Society and the Mathematical Association of America meet,



occurs each January. Typically several PSU professors are in attendance and/or speaking at JMM. The 2015 JMM was held in San Antonio, TX, with close to 6,000 attendees, and Professors Flood, Huffman, and Thuong were joined by PSU graduate student Srividhya Balaji from Chennai, Tamil Nadu, India. Sri, who is also a professional singer of Carnatic music (classical music of Southern India), spoke on

“Connections between Indian Classical Music and Mathematics.” Her presentation can be viewed on [YouTube](#). Partial funding from the PSU Foundation helped Sri travel to the national meeting.



Sri continued to expand her knowledge with her Masters research under the direction of Dr. Scott Thuong. In particular, she looked at connections

between topology and Carnatic music. She presented her findings at the PSU Research Colloquium in April, as well as at a MOKAN (NCTM affiliate) meeting in April and the KSMAA meeting in March.

Mr. Bryan Sperry is an Internet Sensation!

Retired math professor and 89-year old WWII veteran, Bryan Sperry participated in a KU Alumni Football game in April and scored a touchdown! You can watch the play at <https://www.youtube.com/watch?v=toasMKQ5ivc>. The video blew up the Internet and Mr. Sperry and his grandson Cooper Smith were featured on Fox & Friends. The interview can be seen at <https://www.youtube.com/watch?v=K79z6KFu15o>.



Annual PSU Math Picnic Pictures

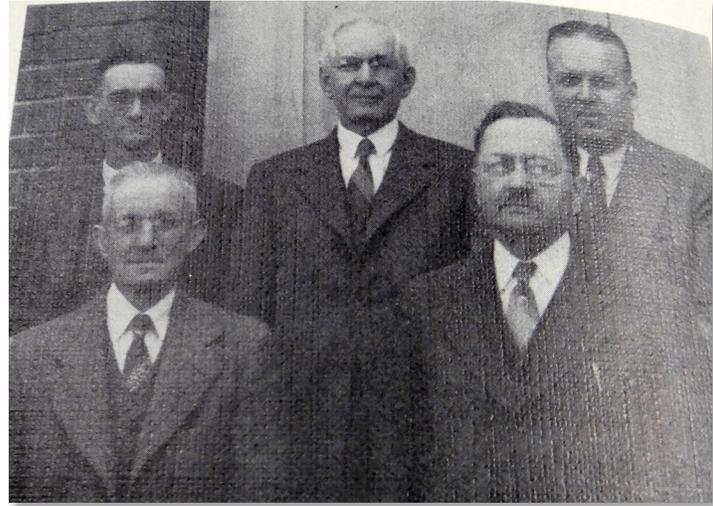


Pre-Images

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.)

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 2015 and the 2015-16 academic year we awarded 62 undergraduate scholarships for a total of \$41,350 and 15 graduate scholarships for a total of \$24,292.



1

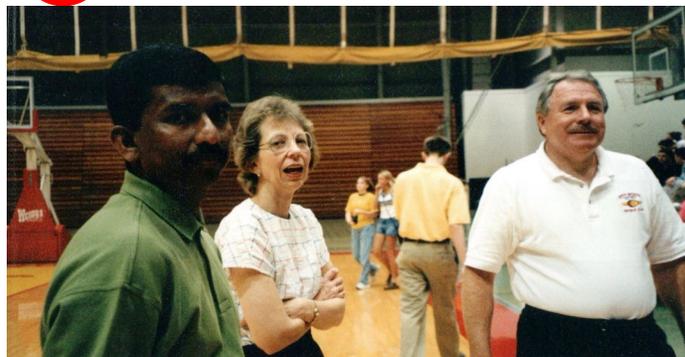


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3

4



5



Picture 1: Picture of Mathematics Department from 1944 Kanza. (Back) Prof. Frank German, Prof. J.A.G. Shirk (Chair), Prof. R. G. Smith. (Front) Prof W.H. Hill, Prof. L.E. Curtman.

Picture 2: J.A. Yates (Physical Science Department), 1913 Kanza yearbook photo.

Picture 3: Graduate dean and math professor J. D. Haggard, 1972 Kanza yearbook photo.

Picture 4: April 1999, Math Relays, Dr. Ananda Jayawardhana, Mrs. Terry Martin, and Dr. Elwyn Davis.

Picture 5: KME 2008 Regional 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: Dr. Yaping Liu, Dr. Ananda Jayawardhana, Mr. David Newcomb, Dr. Cynthia Huffman, Dr. Tim Flood, and PSU alumni Emily Walters, Holden Kraus, Nathaniel and Kris Smith, Heather Haselrick Johnson, Erin Wells Kellogg, Corey Base, Katherine Brumley, Misty and Dusty Peterson, Jake Laas, Corey Base, Tim McVey, and Luke Henke. If you recognize anyone else in the photo, please let Dr. Huffman know (cjhuffman@pittstate.edu).

Kansas State Collegiate Mathematics Competition

The 10th Annual Kansas Collegiate Mathematics Competition took place at Fort Scott Community College on March 28th, 2015. 11 teams of undergraduates from colleges and universities across Kansas participated. The teams were given 10 questions, and worked together for three hours to solve the problems.

PSU sent two teams to the competition. Jason Fenske, Jacob Rowley, and Minh Bui comprised one team, and Georgette Searan and Zack Bowen comprised the second team. While neither team scored high enough to place in the competition, they both had respectable performances.

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. PSU Mathematics Professor Jeremy Wade is a co-director of the competition. More information on the competition can be found at <http://pittstate.edu/departments/math/competition/>.

PSU Mathematics Colloquium Series

For many years now, the Math Department has sponsored a colloquium series. Dr. Yaping Liu is in charge of scheduling the colloquia. The following were the colloquia for the 2014-2015 school year. To schedule a colloquium or for more information, contact Dr. Liu at yliu@pittstate.edu.

- ◆ Mr. Minh Bui, Department of Mathematics, PSU, Dividend Prototype Projection, Sept. 2, 2014.
- ◆ Ms. Srividhya Balaji, Department of Mathematics, PSU, Connections between Indian Classical Music and Mathematics, Sept. 11, 2014.
- ◆ Dr. Scott Thuong, Department of Mathematics, PSU, The Founding of Carthage: An Application of the Isoperimetric Inequality, Oct. 7, 2014.
- ◆ Dr. Yaping Liu, Department of Mathematics, PSU, The Columbo Puzzle and its Extensions, Oct. 30, 2014.
- ◆ Dr. Ananda Jayawardhana, Department of Mathematics, PSU, Correlation, Dec. 1, 2014.
- ◆ Dr. Cynthia Huffman, Department of Mathematics, PSU, Secrets of a Greek Streaker Revealed by a Byzantine Prayer Book, Dec. 2, 2014.
- ◆ Mr. Andrew Buchholz, TRADOC Analysis Center, Operations Research in Army Decision Making, March 26, 2015
- ◆ Dr. K. B. Lee, Professor of Mathematics, University of Oklahoma, Almost Flat Manifolds, March 31, 2015
- ◆ Dr. Ananda Jayawardhana, Department of Mathematics, PSU, Box Plots, April 7, 2015.
- ◆ Ms. Jennifer Jabben, State Manager, Product Integration & Management, Allstate, F.C.A.S. and M.A.A.A., The Work of an Actuary, Webex Presentation, April 17, 2015.

MOKAN Continues Thanks to PSU Math

MOKAN is an affiliated group of the National Council of Teachers of Mathematics (NCTM). It provides an opportunity for mathematics teachers and friends in southwest Missouri and southeast Kansas to network, share teaching ideas, and learn more mathematics. MOKAN traditionally meets four times per school year on the first Monday of October, December, February and April. The location varies, usually alternating between Kansas and Missouri. Officers for 2014-2015 were:



President: Regina Jameson
Columbus High School, PSU Alumna



Vice President: Jean Coltharp
MSSU, PSU Alumna



Treasurer: Tim Flood
PSU, PSU Alumnus

Below is information about the speakers during the 2014-15 school year, along with pictures.

- October 6: Dr. Elwyn Davis, retired PSU faculty, *Math & Aviation*, Place: Woody's, Joplin
- December 1: Dr. Scott Thuong, PSU faculty, *The Mathmagic of De Bruijn Sequences*, Place: PSU (Big Bens)
- February 2: Audrey Gilbreath, PSU undergrad, *Space Camp in Turkey*, Place: El Caballo de Oro, Pittsburg
- April 6: Srividhya Balaji, PSU grad student, *Math & Indian Music*, Place: Keltoi Winery (Mall Deli)



Pitt State Math Relays Pictures



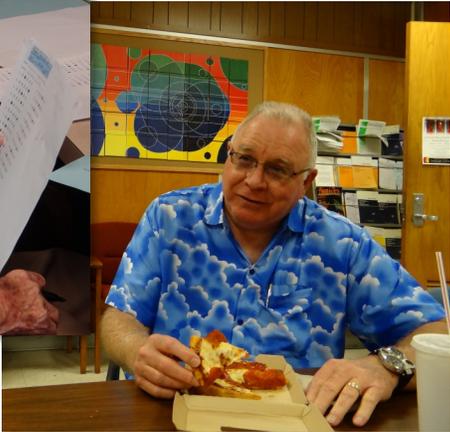
The opening ceremony was in the new Bicknell Center for the Arts instead of the Weede Arena.

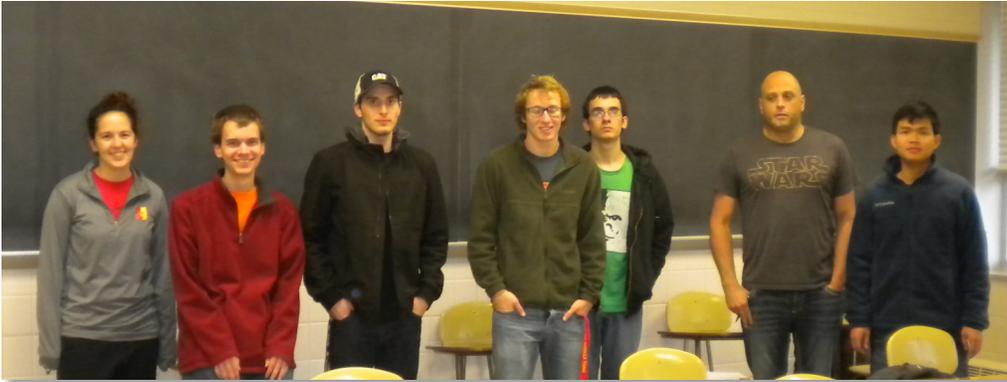


Retired faculty are a big help at Math Relays. Pictured here are Mr. Bryan Sperry, Dr. Helen Kriegsman, and Dr. Elwyn Davis.



The grading room is always a busy place.





2014 Putnam Participants

(L-R) Ashlee Hashman, Zachary Bowen, Jacob Ruhl, Ethan Hartzell, Jacob Rowley, Jason Fenske, and Minh Bui . Not pictured: Georgette Searan and Paige Stainbrook .

Putnam Exam

The 2014 William Lowell Putnam Mathematical Competition was held on December 6, 2014. The competition is open to undergraduate students in the United States and Canada. Participants work on 12 problems over the course of two 3-hour sessions. It is one of the most difficult competitions in the world: out of a possible 120 points, the median score is usually 1 or 0.

Pittsburg State had 9 courageous students participate in the competition: Jason Fenske, Minh Bui, Paige Stainbrook, Zack Bowen, Jacob Rowley, Ashlee Hashman, Jacob Ruhl, Ethan Hartzell, and Georgette Searan. Several of these students prepared for the competition by reviewing previous competitions in the PSU Problem Solving Group with Dr. Thuong and Dr. Wade.

This year, two students received positive scores on the exam. Minh Bui received a 3, and Zack Bowen received a 1. These are the first positive scores on the Putnam that students from PSU have received in close to 10 years! Zack, Minh, and all those who participated are to be commended for their efforts.

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

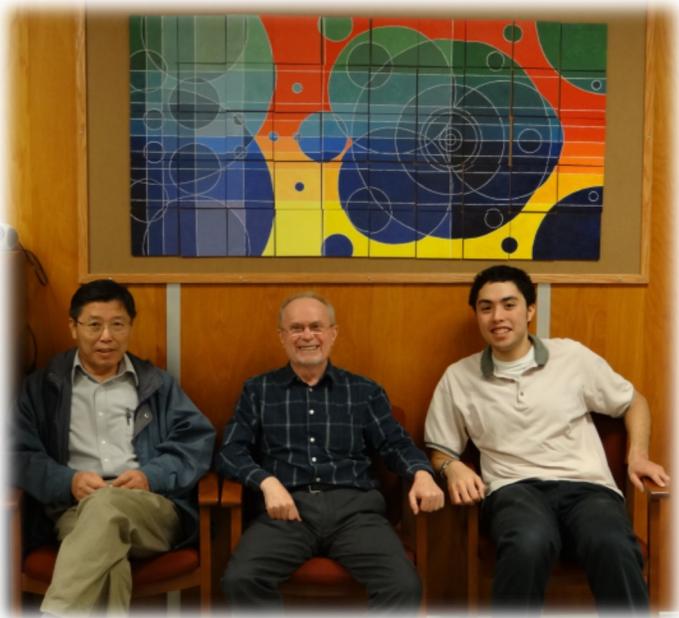
Some of the Math Crew at Graduation



OU Professor Visits Department

Left: Dr. K.B. Lee (University of Oklahoma), Dr. Tadek Dobrowolski, and Dr. Scott Thuong visiting in the department. Dr. Lee was Dr. Thuong's Ph.D. advisor and spent a couple of days at PSU in late March.

Below: Dr. Huffman, graduate students Sri Balaji and Joe Bullock, Dr. Lee, and Dr. Thuong enjoy a Japanese dinner after Dr. Lee's colloquium. (Photo courtesy of Karla Childs.)



Math at the PSU Graduate and Research Banquet

Top left and around clockwise: Rachael Sachs and her husband Zach., Savanna O'Toole and Srividhya Balaji, Kristin Gilpin and her fiancée Ben, Steven Werder and his wife Melinda.

Awards given were:

- ◆ Excellence in Research—Savanna O'Toole and Steven Werder
- ◆ Excellence in Scholarship—Srividha Balaji and Kristin Gilpin
- ◆ Excellence in Teaching—Rachael Sachs

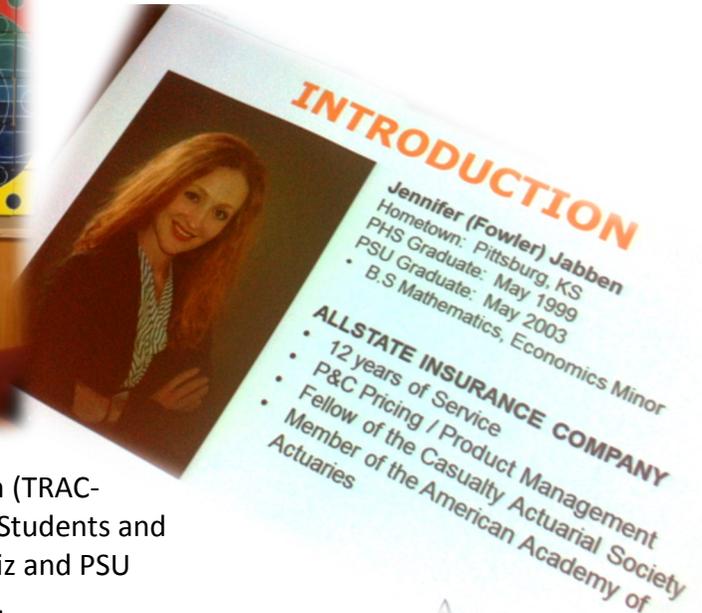


Alumni Present to Students



US Army TRADOC Analysis Center, Fort Leavenworth (TRAC-FLVN), Scholarship and Intern Programs, Briefing to Students and Faculty on March 26. Pictured are Major Pedro Ortiz and PSU math alumni Cara Long Lance and Andrew Buchholz.

Alumna Jennifer Fowler Jabben presented a Math Department Colloquium on “Being an Actuary” via the Internet on April 17.



KSMAA 2015 Distinguished Teaching Award

Congratulations to Dr. Cynthia Huffman for receiving the 2015 Kansas Section of the Mathematical Association of America Award for Distinguished College or University Teaching of Mathematics. Dr. Huffman is the 2nd PSU faculty member to receive this honor. Dr. Gary McGrath received the KSMAA Distinguished Teaching Award in 2000. For the news release about the award, see <http://pittstate.edu/news/math-professor-honored-for-teaching>.

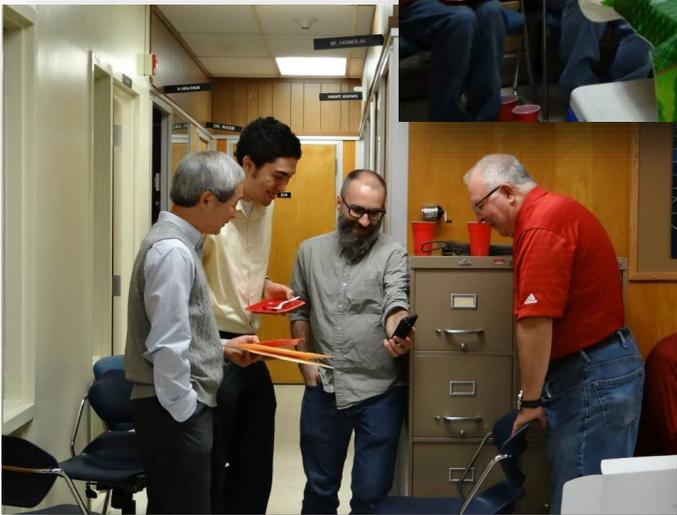
KME Pictures

Savanna O'Toole presenting *Using Abstract Algebra to Solve Sudoku and Other Number Puzzles* at a local KME meeting.



2015 Spring Kappa Mu Epsilon Initiation Ceremony. Left to right: Dr. Tim Flood, Sarah Nistler, Ashley Willis, Sam Hardy.

2014 Math Dept Christmas Party



Dr. Yaping Liu, Dr. Scott Thuong, Dr. Jeremy Wade, and Dr. Elwyn Davis.



Alice Thomas, Karen Davis, Betty Hight, and Dr. Harold Thomas.



Two Pitt State math alumni: PSU President Dr. Steve Scott and former math chair Dr. Helen Kriegsman.

Women in Math Research Paper Wins First Prize



Taylor Elliott, a student in Dr. Huffman's Spring 2015 Women in Mathematics course, entered her research paper in the PSU Women's Studies essay contest. According to the email sent out with the results, they "received a very strong pool of entries" this year, and when the awards were passed out, it was announced that there had been more entries this year than ever before and that they were all good. Taylor's paper, *Lack of Women in STEM Fields: Where Does It Stem From?*, was awarded first place in the contest. Taylor received a certificate and \$75.

Time Flies...

Pitt State math alumnus Jim Carlson was back on campus for his 50th reunion. Jim is retired from teaching mathematics at Neosho County Community College in Chanute, KS. He is pictured here with PSU President Dr. Steve Scott and Mrs. Cathy Scott.



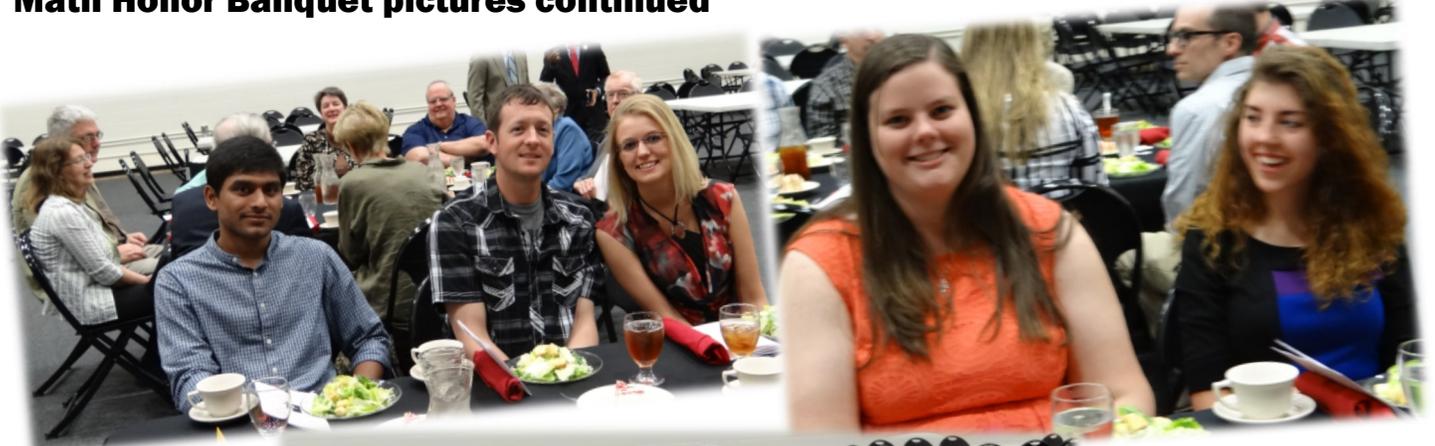
... and Things Change

Once upon a time, the college gym was just to the west of Yates Hall. Then for many years, the area was a green space with trees. Now the area holds the Overman Student Center expansion, which includes a new ballroom. This picture was taken in late April 2015 while it was still under construction.

Math Honor Banquet pictures



Math Honor Banquet pictures continued





Celebrating 100 Years of Mathematics

2015 marked the 100th anniversary of the Mathematical Association of America. The Kansas Section of the MAA was the first section to hold an organizational meeting and the first to apply for a charter to the MAA. Several PSU faculty members were part of the delegation from Kansas attending the centennial celebration at MAA MathFest in Washington, D.C. in August. Pictured above are Dr. Tim Flood, Dr. Cynthia Huffman, and Dr. Scott Thuong. Dr. Yaping Liu was also in attendance.

Students from Dr. Huffman's History of Math class (left to right: Chad Dick, Michael Villarreal, Audrey Gilbreath, and Trevor Smail) explore mathematics books in the Rare Book Room of the Linda Hall Library in Kansas City during a field trip.



Faculty Updates



Dr. Karla Childs

It's been another very active year for me. As always, I love working with the Graduate Teaching Assistants and our Math Learning Community students in Freshman Experience. They are exceptional young adults with so much excitement for learning and for the future.

In March, I attended the International Conference on Technology in Collegiate Mathematics and learned about emerging technologies and new methods and systems of teaching to increase achievement. Another highlight of my year was being asked to serve as the external reviewer for the Missouri Southern State University Mathematics Department's Program Review. I got to spend several days with the MSSU math department learning about the work they do.

Also, this was a year for me to get more physically active. I did a 30 mile bike ride and hiked to the top of Mt. Crested Butte! Since the last newsletter, my youngest son, Andrew, now has a job working in the film industry. He is super excited to be starting his career and I'm just glad that he has a job with benefits! Lastly, my son Tyler was married in October and it was an amazing opportunity to celebrate with family.



Dr. Hazel Coltharp

Babies, babies, babies . . . lots of new, future Gorilla Math Teachers! Many of our former students are adding to the ranks of future math students and maybe future Gorilla Math Teachers, and my baby, born when I was a new faculty member, will enter PSU as an education major this fall!

This past year saw all of our math education majors and middle level math minors hired, and the ever-present call for more! Please encourage anyone that you know, who has a love and interest in mathematics, to consider a career in mathematics education! We've had a bit of a lull in the numbers over the last couple of years, but next fall we'll have eleven again in Techniques, so maybe a rebound! Professionally, I'm still trying to keep up with changing technology in the classroom. As a department, we are reviewing two of our one-hour courses "Calculators in the Secondary Mathematics Classroom" and "Software in the Secondary Mathematics Classroom," and are planning to merge them into a two-hour course, "Technology in the Secondary Mathematics Classroom." Our best input has come from area high school and middle school math teachers, and our own alums. Since the original courses have been around about 15 years, we thought we should do a little updating, but as soon as we do, we'll probably be outdated! New Kansas licensure standards for secondary math teachers, and a looming accreditation visit in Spring of 2017 will keep us re-examining our data!

We love to hear from all of you – don't forget about Gorilla Math Teachers on Facebook!



Dr. Tadek Dobrowolski

As I said in my last blurb, it was good to be back at PSU after a semester of sabbatical leave. During my presentation at the sabbatical showcase, I delivered a bit of history of Poland and Polish mathematics. Perhaps the most known Polish mathematician is Stefan Banach, who didn't attend any college classes, and his first and last degree was a Ph.D. in math. In his several page dissertation he introduced the idea of normed complete linear spaces, now called Banach spaces. Within the undergraduate level, the notion of Wronskian is known. This term was invented by Józef Maria Hoene Wroński, a Polish Messianist philosopher, mathematician, physicist, inventor, lawyer, and economist. His name should be pronounced Vroński ("ń" is the well-known soft Spanish "n").

But while on my sabbatical, my Polish students teased me for pronouncing it "Ronskian", instead of "Vrońskian". I do not know any English word that starts with "vr", do you?

During the Spring semester, I enjoyed teaching Calc III. This time I got a very solid group of students. With a couple of them, I made friends at lunch on the occasion of Putnam Math Test Competition. I was proud to be able to reach Stokes Theorem. Other classes went smoothly, especially with the help of Rachael and David, during my absences for my wife's chemo and radiation treatment.

I was a referee of two Ph.D. dissertations of Paweł Krupski (Institute of Mathematics, Polish Academy of Sciences) and Saul Ordonez (UNAM, Mexico). I attended the defenses with pleasure. This was very much an official ceremony – quite impressive (including dinner afterwards).

Have a nice 2015/16 academic year, the 21st for me at PSU. When I first moved to PSU, Physical Plant guys constructed for me a nice desk in my office. Seeing the beauty of the desk, Forrest Coltharp once told to me: After what you got now, you must be loyal and stay at PSU for 20 years. Sure, he was right.



Mr. George Kaemmerling

This past year was a good year for Pittsburg State University sports. I attended many games to show support for our student athletics. I especially like to promote women's sports. It was wonderful to see larger crowds at the home softball games.

The NCAA Division II softball championships were held in Oklahoma City this past school year. I took advantage of it being close enough to attend. I also attended the division I championship games. While there I came across a couple of our new softball players. Because I wear attire that promotes PSU while I am there, I get to talk to a few alumni and some potential students. I try to find Math majors.

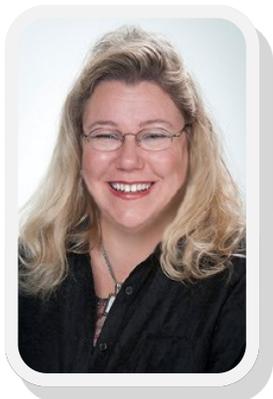
Green beans and tomatoes in our garden produced a tremendous crop this year. We had enough to give some to a few of our friends and neighbors.

I was able to tear out the old garage floor and have a new one installed during the summer. I have some new projects to look forward to doing now that the floor is finished.

I look forward to another successful school year.



Dr. Wade talking about Math and Zombies



Dr. Cynthia Huffman

Here it is the start of another academic year. It is always an exciting time when students return to campus after summer break. I am on sabbatical this fall, so it feels strange not preparing syllabi and lessons. My sabbatical project is to research influential European mathematical books from the 15th through 18th centuries and to create materials for teachers to include history of math information in lessons. I was awarded a research fellowship for the Linda Hall Library in Kansas City. So, I will be spending several weeks at the library working in their world renowned rare book room.

I continue to split my work time among teaching, scholarly activity, and service. Teaching is my favorite part and I try to make learning mathematics fun and relevant for my students. It was a great thrill to be awarded the Kansas Section of the Mathematical Association of America Award for Distinguished College or University Teaching of Mathematics in the spring. I remember when Dr. McGrath received the award a few years back. I love my job and working with such wonderful students and colleagues!

It was a busy time for scholarly activity again this year, especially during the breaks when classes were not in session. A paper co-authored with history professor Dr. Chris Childers of Benedictine College on Napoleon and Mathematics and Egypt appeared in *The Midwest Quarterly* journal. It was based on research I conducted after visiting Egypt a few years ago on a mathematical study tour. For several years, I've been working on a project to translate one of Euler's papers from Latin to English. I was finally able to complete the translation last summer and this summer I've been working on a commentary to accompany the translation. Dr. Scott Thuong and I completed an article on *Ancient Indian Rope Geometry in the Classroom* which includes some really cool Geogebra applets that Dr. Thuong created. It has been accepted by the peer-reviewed online MAA journal *Convergence* and they would like us to do a follow-up article.

This summer I completed my second and final four-year term as National Treasurer for the mathematics honor society Kappa Mu Epsilon. I enjoyed being on the National KME Executive Council and encouraging undergraduate students in their studies of mathematics. I also completed my three-year 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. I am continuing 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.

Other milestones this past year include giving my 250th professional presentation and beginning supervision of my 45th Masters Research Project. I also presented my first hour-long solo handbell concert at a national bell collectors convention.

I love hearing what all of you 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

A paper I co-authored with a biology graduate student and two biology faculty won the Charles E. Bessey Award for the best natural sciences article. "An Assessment of Prairie Restoration at Fort Scott National Historic Site" was published in Volume 24 of Great Plains Research.

I published a paper titled "Predictive Density Estimation in Accelerated Life Testing for Lognormal Life Distributions" which was co-authored by my thesis advisor. After all these years I still do some collaborative work with him.

I attended the Symposium on Biostatistics at Cerner Corporation in April and attended a short course in Logistic regression. I also attended the Joint Statistical Meeting in Seattle in August. I presented my research in Seattle, attended meetings as the chair-elect of the Council of Chapters Governing Board, attended technical talks, and attended the Mu Sigma Rho annual Meeting. I competed for a session at the national meeting and organized a panel discussion titled "Statistics Education through Online Education" which was well attended. It was a pleasure to visit with our former graduate student Olga who is now a faculty member in Kentucky. I also found little time to visit Seattle and eat some sea food.

I also attended the Central States Actuarial Forum. Number of students who select the actuarial emphasis has not increased over the years but those who have completed the degree have either gone to graduate school or found jobs in the industry.

During summer I changed my Introduction to Applied Statistics class material (this is the class current mathematics education majors take instead of Probability and Statistics) to flip the class. I am getting a better grasp of how to teach online Elementary Statistics classes now. I have made contacts with some of the pioneering online statistics educators in the country.

Regarding service, I still serve on the faculty senate. I am completing my 3 year term on the KNEA bargaining team. I completed my year as the president of the Sunrise Rotary Club. After a few years as the faculty advisor of the Indian Student Association, I have decided to step out. It was fun to participate in Diwali and Holi! As the VP of the Mu Sigma Rho I coordinated the National Statistics Education Award winner selection. I also served as the secretary of the organization during the first 6 months while the elected secretary was on sabbatical in New Zealand.

I am co-chair of the Tilford Conference on Diversity and Multiculturalism to be held in Pittsburg on October 19-20. I have served on the statewide planning committee since 2007. This conference will be held in Pittsburg in 2015 and 2016 and then move to Ft. Hays State University.

We conducted the local annual statistics poster contest for grades 10-12 and this year a poster from Joplin High School won second place and another poster from the same school won an honorable mention in the national competition. In 2014 a poster from the same school won first place in the national competition. Congratulations to the teacher and mentor Adam Bennett (PSU Alumni) of Joplin High School for his success in working with talented students! If you are a teacher and do not participate in this competition, please consider participating next year.

My adjunct faculty position at the University of Kansas Medical Center Biostatistics Department has been extended and a paper I worked on with several faculty members of the KUMC has been submitted for publication.

I also did my garden this summer and found time to visit New Orleans!



Dr. Yaping Liu

In the past year, the biggest thing that happened in my life was that my elder daughter, Diana, got married. It was all happiness except the sad realization that I'm growing old. I made two trips to the east coast this summer; one in June to Philadelphia for the wedding and the other in August to DC for the MathFest. MAA (Mathematical Association of America) turns 100 years old this year. It was great to participate in the centennial celebration. 2015's MathFest is the largest in history. There were many invited lectures, contributed talks, mini-courses, and other fun activities including music, performances, magic, art exhibition, etc. I gave a presentation on Pascal's Triangles at the event.

Last fall we introduced the new calculus textbook, Thomas' Calculus 13th ed., with online learning software MyMathLab. We have been phasing in the new book during the past year. Now the whole calculus sequence becomes kind of hybrid because the instruction is face to face, but homework is done online. This fall I'm teaching Calculus III using MyMathLab for the first time. One problem is that some students took Calculus II before last semester, so that they had to buy the access to a new book (e-book) and learn how to use a new software. In a year or two this problem will be much lessened. Only the students who took Calculus I and/or II elsewhere will still have to face this problem.

As the departmental graduate coordinator, I'll again report on the number of master's students we have produced. This number varies year to year. This year it is not spectacular, but not bad either. Since summer 2014, five graduate students have successfully finished their classes and research, passed the master's comprehensive exams, and received their master's degree.

I became the faculty advisor for the PSU Chinese Student Association last fall. We organized and hosted two main events during the year, one was the Mid-Autumn Festival last September in the student center and the other the Chinese New Year Gala last February in the new performing arts center. Hundreds of people on campus and in the community came to join the celebration of traditional Chinese holidays, watch the performances, and participate in the cultural activities.

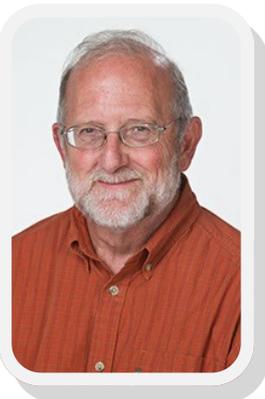
I continue to write reviews for the mathematical database Zentralblatt MATH. I also served as a referee for another mathematical journal. Last fall I gave a few presentations in the department. In September I was invited by Dr. Thuong to give a presentation at the PSU MAA student chapter meeting. The title of the presentation was "Mathematrixicks". I was also invited to speak to Dr. Huffman's History of Math class and give a presentation titled "The Chinese Remainder Theorem". In November I gave a colloquium talk titled "The Columbus Puzzle".

That's all for now. Thanks for reading.



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 eight years that I have been a full-time instructor in the Mathematics Department at Pittsburg State University. It continues to be a challenging and fulfilling experience. Preparing for the variety of courses that I teach (College Algebra, Quantitative Reasoning, Mathematics for Elementary Education, Calculus I, and Mathematics Education Seminar) keeps me extremely busy. But it is a good busy. In addition, the nature of the variety of students is always interesting. The students are the heart of PSU and they keep everything and everyone active.

This summer my wife and I continued some of our standard activities. We completed a few projects around the home. We went on a few camping trips. We took care of a nice garden with green beans, potatoes, tomatoes, peppers, okra, and squash. There are still a few cantaloupes and watermelons that are doing well. We attended a family reunion in Colorado Springs which included some exciting excursions. We got in several bicycle rides around the area.

Have a wonderful 2015/2016 academic year at PSU.



Dr. Scott Thuong

How time flies! It's hard to believe my first year at Pittsburg State University is already over. I enjoyed meeting everyone in the Math Department, and thank everyone for helping me acclimate to PSU.

This year I taught Quantitative Reasoning, Elementary Statistics, Calculus I, and Topology. It was fun to meet all my new students. In addition, I assisted Dr. Wade and Dr. Dobrowolski with the Problem Solving Group. We help students solve challenging problems in math publications. This semester we've submitted quite a few solutions.

Dr. Huffman and I researched ancient Indian rope geometry, and submitted a paper "Ancient Indian Rope Geometry in the Classroom" to the MAA journal Convergence. The paper will be presented by Dr. Huffman at the 2015 MAA MathFest in Washington, D.C. In addition, I've had a paper "Infra-solvmanifolds of Sol_1^4 " (with Kyung Bai Lee) accepted for publication in the Journal of the Korean Mathematical Society, and submitted another, "The Bounding Problem for Infra-solvmanifolds." I also had the honor of serving as a referee for the journal Topology and its Applications. The refereed paper was subsequently accepted by the editor this June.

I gave presentations on my research at the 2015 Joint Mathematics Meetings in San Antonio, TX, and at the 2015 MAA Kansas Section Meeting in Ft. Scott, KS. I plan on doing the same at the 2015 MAA MathFest. In February, I also had the opportunity to give a presentation to the Missouri Southern Math Club. In March, I had the honor of inviting my adviser from OU, K. B. Lee, to give a colloquium in the department. He really enjoyed his visit, and I thank the department for welcoming him so kindly.

I look forward to my second year, and wish everyone a nice 2015/16 academic year!



Dr. Jeremy Wade

The past year has been fairly busy. In addition to teaching the usual courses (Quantitative Reasoning, Calculus II, Analysis, Numerical Analysis, Linear Optimization Models), I've been heading up the Problem Solving Group with Dr. Scott Thuong. We've been working with students on solving (if we're lucky) problems that appear in mathematics publications. A few of the solutions that came out of the group were published this past year. We've also worked with students in the group to prepare for the Putnam Competition and the Kansas Collegiate Mathematics Competition.

In June, I traveled to Gaithersburg, Maryland to give a talk at the 13th International Symposium on Orthogonal Polynomials, Special Functions, and Applications. The talk was held at the National Institute of Standards and Technology. It was interesting to see the facility and listen to some presentations, and nice to meet and re-connect with other researchers in the area.

I have been active in PSU-KNEA, our faculty union, and in April I was the delegate to the state-wide representative assembly of KNEA in Topeka. There were hundreds of educators across Kansas at the meeting, and I was able to meet several of them and discuss and learn about public education throughout our state.

I have been the department's representative to the PSU Faculty Senate this past year. The Faculty Senate is the governing body over courses and curricula at PSU. This has been an interesting and educational experience for me, and has allowed me to meet many other faculty members at PSU.

When I am not busy with the above activities, I try to stay active in research. I regularly review articles for Zentrallblatt Math and Mathematical Reviews, two databases that contain descriptions of research publications in mathematics. I have also referred two articles for publications this past year, which involves carefully reading and checking the work of articles that have been submitted to the journals. I am also working on some research of my own, involving multivariable orthogonal polynomials.

On a lighter, non-mathematical note, I was able to travel to Texas in December to do some hiking. If you have the opportunity and enjoy being outdoors, I would highly recommend visiting Big Bend National Park in southwest Texas. The park features a beautiful, green cluster of mountains in the middle of the Guadalupe desert. Also, the burritos at Mingo's Burritos in Fort Stockton were to die for.

That is probably enough for now. Thanks for reading, and keep in touch.



Dr. Bobby Winters

I continue to serve 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!

The featured alumna for this newsletter is Dr. Helen Kriegsman. After graduating from high school in Pittsburg, KS, Dr. Kriegsman earned two degrees from PSU: a bachelors in mathematics in 1944 and masters in mathematics in the summer of 1947. By going to summer school, Helen was able to graduate with her bachelors degree in three years.

Dr. Kriegsman’s career path started as a secondary mathematics teacher. She taught for two years at Altamont and one year at Chanute. Then as she finished up her Masters degree, her career path took an unexpected turn. There were two other women who were working on their Masters degrees as well as her, and since there was an upcoming retirement in the mathematics department, the chair Dr. Smith asked all three women to go see Dean Mahan, the Dean of Instruction at what was then called Kansas State Teachers College of Pittsburg. During her interview, Dean Mahan mentioned several times to Helen that they really needed someone with ten years of experience. At this time, Helen had three years teaching experience and the other two women had more than ten, but their experience was at the elementary level. Eventually after hearing one more time from Dean Mahan that they needed someone with ten years of experience, Helen said, “Well, Dr. Mahan, they only give you one year at a time. That’s all I can give you,” and she got up and left, assuming she would not get the position. The interview had taken place in November and Helen heard nothing more about it for the rest of the school year. She completed her Masters that summer and expected to continue teaching at Chanute in the fall. Right before the start of the new school year, Helen received a phone call from her mother saying that Dr. Smith had come out to their house and needed Hel-

en to come in to work on Monday. Helen had been working as a part-time secretary for the Mathematics Department and was puzzled since the last week that she had worked, there hadn’t been anything for her to do. But, she responded to the summons, and on Monday morning headed up to the department on the third floor of Russ Hall. On her way, she ran into Dean Mahan coming out of his office. He told her, “Well hello, Helen. We decided everything except for your salary.” She had gotten the job after all!

Helen was the first female to have a tenure track position in the Mathematics Department. By working during summers, a sabbatical, and another semester off, she earned a doctorate from Ohio State University. She continued to teach in the Mathematics Department at PSU, becoming the chair of the department in 1967. Dr. Kriegsman served in the position of chair for 22 years. After her retirement, she continued to serve PSU as a volunteer for the PSU Foundation for 14 years.

Dr. Kriegsman has influenced the lives of many people and she has served as a role model for several female students who have gone on to become mathematics professors, including Dr. Coltharp and Dr. Huffman of PSU.

Quoting Dr. Kriegsman, “Students with mathematics in their background usually receive good positions.” A former student, Jim Harlin, who did go on to get a good position, surprised Dr. Kriegsman in 2003, by announcing a \$100,000 gift from Bank One to establish the Helen Kriegsman Service Scholarship in her honor.



Various pictures of Dr. Kriegsman from her senior Kanza yearbook picture in 1944 to 2015.



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

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