2003-2004 Outstanding Senior Awards

The Mathematics Department annually selects senior majors for recognition of their achievements. Criteria include both mathematics and overall GPA's, performance in capstone and other high-level mathematics courses, results of the ETS Major Field Test in Mathematics and participation in departmental activities.

This year the department has selected Louisa Maus, Udip Rayamajhi and Jennifer Selstedt as winners of the "Outstanding Senior" awards. In addition to recognition by the faculty, each student will receive membership in the professional society of their choice.

LOUISA MAUS graduated from Osakis High School and is the daughter of Dennis and Rita Maus. While pursuing a major in mathematics education, she was active in the Math Club, Volunteer Visions, Education Minnesota Student Program (EMSP), and worked as a tutor in the Mathematics Learning Center. Louisa did her student teaching at Agassiz Middle School in Fargo, and she also worked for the Red River Human Services Foundation.

Louisa plans to teach mathematics at the middle school or high school level. Accordingly, she has selected membership in The National Council of Teachers of Mathematics (NCTM).

UDIP RAYAMAJHI comes to MSUM from Kathmandu, Nepal, where he graduated from the Budhanilkantha School. His parents are Udaya and Sabita Rayamajhi. Udip is completing a Bachelor of Science in mathematics with an emphasis in actuarial science and has a minor in finance. He is an active member of The International Students Club and has worked as a mathematics tutor in The New Center, a computer lab assistant, and as a Web Developer assistant in I.T. Udip also held an internship at Winrock International where he worked as a Software/Web Developer.

After graduation he plans to work as an actuary or as a credit risk analyst. In keeping with these interests, he has selected membership in The Society of Industrial and Applied Mathematics (SIAM).

JENNIFER SELSTEDT is a graduate of Richland (North Dakota) High School and is the daughter of Randy and Cindy Selstedt of Walcott, North Dakota. While at MSUM she has worked part-time for American Federal Bank and has done private tutoring for students of all ages.

She will receive a Bachelor's degree in mathematics with an emphasis in actuarial science and a minor in accounting. Jennifer's postgraduate plans include working as an actuary for an insurance company in the Midwest. She has selected membership in The Mathematical Association of America (MAA).
Wallen Scholarship Recipient

Elizabeth Smith, a graduate of Green Bay West High School, is this year's recipient of the James T. Wallen Scholarship for juniors in mathematics. Her parents are David and Rae Ellen Smith of Green Bay, Wisconsin.

While at MSUM, she has been a member of both Alpha Lambda Delta and Phi Kappa Phi honor societies and she has worked as a tutor in the Mathematics Department Tutor Room and at the Café Connection.

Elizabeth is pursuing a degree in mathematics education with a minor in communication studies. After graduation she plans on a career in teaching.

The Wallen Scholarship is given to a junior mathematics major and is named after Jim Wallen who was a member of the department for 30 years. The fund supporting this award remains open to further donations, so if you choose to join this effort please send your check to the Minnesota State University Moorhead Foundation and designate that your contribution be credited to the Wallen Scholarship Fund.

Other Department Awards

Two special circumstances led the department to make additional awards this year. First, we have some outstanding students nearing completion of a second degree. These are students who already hold a bachelor's degree and have been completing the mathematics or mathematics education component of another bachelor's degree. Second, due to the generosity of the alumni in the phonothon this year, we have additional scholarship money available for outstanding mathematics students. The students and the department are grateful to our alumni for giving the money to provide these scholarships.

Outstanding seniors pursuing their second degrees and majoring in mathematics are Robert Anderson who has a degree in English (MSUM); Joshua Duerr who has a degree in mathematics (MSUM) and will be receiving a math ed degree; Benjamin Holle who has a degree in Sociology (MSUM); and Chin Ng whose holds a degree in chemical engineering (University of Oklahoma) and a degree in computer science (MSUM).

Scholarships at the beginning level are being awarded to Chelsie Grochow, Chelsea Keller, Roseanne Pfennig, and Jessica Trautwein, who are all currently enrolled in calculus classes.

Scholarships for students at a more advanced level will go to Jackie Doerr, Mukesh Khanal, and Jayne Linsted. In addition, scholarship awards are being given to two elementary education majors who are completing a specialization in mathematics, Ashley Greff and Lea Ista.

Department News

Professors Tim Harms and Jerry Stockrahm received their Ph.D. degrees. Dr. Harms got his from the University of North Dakota; his thesis in mathematics education is entitled "Analysis of Minnesota Students' Mathematical Literacy on TIMSS, NAEP, and MN BST". Dr. Stockrahm completed his degree in the statistics program at North Dakota State University with a thesis, "Discrete Deconvolution".

Professor Harms was also an invited speaker at the NDCTM meeting this spring in Grand Forks, and worked with students judging the Regional Science Olympiad held at MSUM this spring.

Dr. Ng Geok Lian was tenured and was promoted to Associate Professor. She presented a paper, "We Love Numbers Ending in 5!" at the National Council of Teachers of Mathematics Canadian Regional Conference in Edmonton, Alberta, and has worked with elementary education students on several other presentations.

Professor Derald Rothmann was one of two MSUM 2003 nominees for the CASE (Council for the Advancement and Support of Education) U.S. Professors of the Year Award.

Professor Kris Montis presented a paper at the national Research Council on Mathematics Learning meeting in February. Her paper, on using guided notes in liberal arts and education-related mathematics courses, won their Most Outstanding Empirical Research Award for 2004.

Professor Walter Sizer continues as section secretary of the Mathematical Association of America. He presented a poster, "Periodicity in the Lyness Equation", at the December joint India/American Mathematical Society meeting in Bangalore, India.

Professor S.J. Drozdil has been selected as a Faculty Fellow for the 2004 NASA Faculty Fellowship Program. He will spend the summer at the Jet Propulsion Laboratory. This is his fifth such fellowship. He will continue his work with JPL colleagues on modeling the interplanetary micrometeoroid environment.

The Problem Corner 2003

1. Two missiles located 2317 miles from each other are simultaneously set off. They speed directly towards each other, one at 10000 miles per hour and the other at 14000 miles per hour. Without using pencil and paper (or a calculator) determine how far the missiles are apart 1 minute before they collide.

2. Ask someone to do the following:
   a. Consider any 3 digit number, where the first and third digits are different;
   b. Reverse the order of the three digits to form a second 3 digit number;
   c. Subtract the smaller 3 digit number from the larger and state the units digit of the difference.

At this point you should be able to state the entire difference. Why is this possible?

3. In a recent issue of the Parade magazine, Marilyn Vos Savant posed a question of the following type. Is Lynn (alone) can eat a whole pie in 8 minutes, Gail can eat a whole pie in 10 minutes and Alex can eat a whole pie in 10.71697603 minutes, then how long would it take these individuals, eating together, to eat a whole pie? Guess the result and then show that your guess is correct.

4. The following problem appeared on the high school team exam in our 2004 Tri-College Mathematics Contest.

Let \( f(x) = \sin^2(x) + \cos^2(x) \). For how many \( x \) in \([0, \pi]\) is it true that

\[ 6f(x) - 4f(x) = 2f(x)? \]

To find solutions for these problems go to the MSUM website (www.mnstate.edu) and then go to the Mathematics Department's webpage.

2004 Alumnus News:

Dave Jacobson, Ph.D., '80, continues as a senior reliability/quality engineer at IBM Rochester where he recently observed his 20th anniversary. Dave also finished his 10th year as an adjunct professor of statistics at St. Mary's University. His wife Deb is a biostatistician at Mayo Clinic. They have two children, Justin (high school senior) and Emily (high school freshman). Justin will continue the family tradition of studying quantitative methods when he majors in statistics and actuarial science at the University of Minnesota – Twin Cities beginning Fall 2004.

David Sederquist, '83, is a Regulatory/Financial Consultant with Xcel Energy in Fargo, ND. He and his wife Jane (Remark), '84, and their sons Tom 15, Dan 13, and Ryan 13 live south of Moorhead on 4 acres along the Red River. They enjoy camping, skiing, golf, running, and working around the house. David reports that he is a broken-hearted MN Vikings fan waiting for next year.

Dave.sederquist@xcelenergy.com

Theresa (Fedor) Resnick, '85, is an Associate Actuary with Combined Insurance Company of America located in Glenview, IL. She has been with Combined over four years spending much of her time on the international business, booking several thousand air miles a year. Theresa has been active in Society of Actuaries activities currently co chairing a team redesigning the fellowship courses. She lives in Northbrook, IL with husband Mike and their son Peter, age 10. Theresa's limited free time is spent enjoying the sporting (mostly baseball) activities of Peter (he wears a Twins hat, yeah!) and matching the wine to the gourmet meal she has prepared. She reports that she has turned into a "Foodie," spending way too much of her time watching The Food Network! Red Zinfandel is her favorite! The fun news is that Theresa just recently found out that the chief counsel for her company is an MSC grad. She declares that "We are everywhere!" Theresa confesses she never uses any of the Fortran, Cobol, Pascal and Basic she learned in her ComSci classes. But everyday she solves problems using all the thinking and reasoning skills the Math Department so wonderfully taught! Everyday Theresa uses the communication skills and language arts learned in philosophy, English, math, and other courses. Thank you, Teachers! Hi to all, but especially Tim Peil, Dr. Hazenbuhler, Dr. Mattson, and Bette Midgarden. Theresa_Resnick@cic.aon.com

Katie Noel, '86, still teaches 7th and 8th grade math at Harlem (MT) Junior/Senior High School. She and eight-year-old son Trent love attending basketball games. Trent loves sports, which has been convenient for Katie as she keeps the score books for basketball games. They live on a 25-acre farm and have one dog and numerous cats. Because they lease out their land, they also have several other animals around from time to time: cows, pigs, horses etc.

Gary Seiler, '86, resides in Rogers, Arkansas with his wife Mary Ann and their four daughters, Monica 12, Megan 9, Emily 6 and Pamela 2. His career with fresh beef and pork continues, but now also includes chicken. This resulted from the merging of IBP and Tyson to form a "new" Tyson. About three years ago, Gary switched his career to a Business Analyst for the IT Department. There he provides support and development utilizing MIMI (linear programming optimization software). The models with millions of constraints and variables produce production schedules and transportation schedules. Gary continues to utilize his great education. Thank you to all of his teachers and professors! Gmsaile@aol.com

Stephanie Cundiff, '87, has been teaching math at Mesa Ridge High School in Colorado Springs, CO for 16 years (10 within her current district). She and husband Dave have two children, Joshua 6 and Emma 10 months, who keep them very busy. Stephanie writes that before her daughter was born she was active with being department chairperson, math club sponsor, curriculum work, and coaching. Now she's "just" a math teacher, mom and wife and loving every bit of them all! Stephanie comments that Colorado is really searching for good teachers (and the weather there is much kinder than Minnesota.) cundiffs@adelphia.net
Karla (Rothmann) Herz, '89, has been working for the United States Postal Service in Hillsboro, ND for the past seven years as a Postal Clerk. She has recently accepted the position of Postmaster in Page, ND. Karla is looking forward to serving the people in her local community as well as having more time with her and husband Glenn's busy, growing daughters Kaitlyn 13½ and Morgan 11. Glenn stays busy working for Satrom-Hiam Seed of Page, ND as well as snowmobiling. In her spare time Karla is involved in many local organizations, such as 'Dollars for Scholars'. She sends a big 'hello' to the other members of Dr. Rothmann's infamous Math 392 and 393 classes of 1988.

Amy (Weatherly) Bryant, '94, lives in Fargo and is the Office Manager of Securities License at Merrill Lynch.

Barrett Prody, '95, and Emily (Rudh) Prody, '95, currently live in Moorhead where they jointly run their own quality control consulting business. They have two children, William, 4, and Hannah, 1. In addition to spending time with family, in their spare time they enjoy spending time at the lake. Hello to all of their former professors and classmates. bprody@qualityassure.net

James Saari, '95, and wife Julie (Disse) have three children, Keegan (4), Addie (3) and Aiden (1). They live in the rural Bemidji area and James is teaching mathematics at Bemidji High School.

Tracy Sibell, '97, is teaching 8th grade mathematics (Pre-Algebra, Honors Algebra I) at a private school, Pulaski Academy (K-12), in Little Rock, AR. At the varsity level, she is also the volleyball coach and the assistant soccer coach for boys and girls. Tracy sends a special hello to Dr. Peil, Dr. Rothmann, Dr. Rhoads and Dr. Mattson!

Andrew Martinson, '98, is currently teaching 7th and 8th grade mathematics at Central Middle School in White Bear Lake, MN. He was hired by White Bear Lake Area Schools immediately after graduating from Moorhead State University and has been in this district for six years. Andy took a one-year leave in 2001-2002 to teach mathematics in Nottingham, England on a Fulbright Teaching Exchange. He is currently working toward a master of science in Experiential Education at MSU, Mankato. ajmart@wbl.whitebear.k12.mn.us

Dorene (Bickett) Herring, '99, is in her 5th year teaching mathematics, and her 4th year at Rochester Public Schools. Currently she teaches 9th grade Algebra 1 and Integrated Math 1 at Mayo High School. Dorene was recently married in September and they just bought a house in Rochester (MN). dorene@cws.net

Kelly (Finke) Hebzynski, '01, got married in August 2003. She is living in Northfield (MN) and teaching in Montgomery, MN.

Kimberly (Lester) Kraft, '01, is currently teaching science at Barnesville (MN) High School. This last summer she started working on her Master's in Mathematics Education at North Dakota State University. Kim hopes to finish in May of 2005. She's also had the opportunity to teach a math class at NDSU last fall noting that it was a great experience. On a personal note, in December of 2003 Kim got married to a wonderful man Brad Kraft. kimmerlykraft@hotmail.com

Angie Hodge, '02, is currently a graduate student at Purdue University working towards a master's degree in mathematics and a Ph.D. in mathematics education. She is also teaching two sections of the math for elementary school teachers courses at Purdue. Angie says hi to everyone. ahodge@math.purdue.edu

Heather Lindberg, '03, and husband Chad had their first baby on January 27th, 2004. Jackson Thomas was 19 ½ inches long and weighed 8 lbs., 5 oz. Heather began substitute teaching in the Fargo-Moorhead area in March. She has accepted a teaching position at Discovery Junior High in Fargo this fall.