2001-2002 Outstanding Senior Awards

Each year outstanding senior mathematics majors are selected by the faculty for recognition. Criteria used in this process include mathematics GPA, overall GPA at MSUM, performance in difficult mathematics courses and the results of the ETS Major Field Test in Mathematics. This year the winners are Angela Hodge, John Reber and David Stahl. In addition to recognition by the faculty, each student will receive membership in the professional society of their choice.

ANGELA HODGE graduated from Warroad High School and is the daughter of Ron and Cindy Hodge. While at MSUM Angie has compiled an outstanding academic record and has been a math tutor, Math Club president, a peer advisor, and is a member of The Student Advisory Board. Angie has also been a participant in the Education Minnesota Student Program and is a member of the Phi Kappa Phi and Kappa Delta Pi honor societies.

This year she is the recipient of the Bill Ritchie Award for Excellence in Mathematics as well. Upon completion of her undergraduate degree Angie plans to attend graduate school with the ultimate goal of obtaining a Ph.D. in mathematics and teaching at the university level.

Angie has chosen membership in the Mathematical Association of America.

JOHN REBER is a graduate of Rothsay, (MN) High School and is the son of Jon and Gail Reber. At MSUM John has maintained a high level of scholarship while majoring in mathematics with a computational emphasis. He is completing minors in computer science and physics as well. Also he is active in the Math Club and has been a Mathematics Department tutor for three years.

After graduation John plans to attend graduate school in statistics. Accordingly, he has selected membership in S.I.A.M.

DAVID STAHL is the son of Merlin and Gale Stahl of Hazen, North Dakota and is a 1998 graduate of Hazen High School. At MSUM Dave has completed majors in Mathematics, Computer Information Systems and Management Information Systems, while maintaining an excellent overall academic record. He has also been employed by and held an internship with the MSUM Student Tech Team.

When he graduates, Dave plans to take a "little vacation", then obtain work in the area of computer science. Also, he has not ruled out future graduate work, perhaps in an area which combines computer science and mathematics.

Dave has selected membership in the Mathematical Association of America.
Department News

This fall, the Mathematics Department was pleased to welcome two new assistant professors. Dr. Ellen Hill is originally from Richfield, MN, and did her undergraduate work at N.D.S.U. A specialist in mathematical physics, Dr. Hill received her Ph.D. from Indiana University, where she passed Ph.D. examinations in both mathematics and physics.

Dr. Kristine Montis received her Ph.D. from the University of Oklahoma and is a specialist in mathematics education. Dr. Montis has substantial field experience, having taught mathematics for 12 years in secondary schools in New Mexico. After that she served as a counselor before attending graduate school to obtain her Ph.D. Prior to joining the MSUM faculty, Kris served as assistant professor at Lake Superior State University in Michigan. Both new faculty members have already proven to be excellent additions to the mathematics faculty and add to its diversity as well.

This year, for the first time in recent memory, the department has awarded both the Ritchie and the Wallen scholarships. While the overall number of MSUM mathematics majors remains depressed, as is the case nationally, this year’s senior majors, as a group, scored above the 80th percentile on the ETS Major Field Test in mathematics. Approximately 150 schools participate in the exam. It is also likely that as many as four of this spring’s seniors will go on to graduate study. Three graduating seniors scored in the 90th percentile as individuals on the ETS exam as well. Congratulations to all the seniors – good luck!

Mathematics Learning Center

When more colleges and universities started requiring their graduates to become proficient in mathematics, it became apparent that more students would need to review and/or develop their basic algebra skills. In recent years the MnSCU system started requiring its incoming freshmen students to take placement exams in Mathematics and English. Individual institutions in the MnSCU system were to provide developmental programs for students deficient in these areas of study.

In the 2001 edition of the SUMMARY we shared our plans for the Mathematics Learning Center (MLC). Here is the progress report after the first year. Approximately two years ago, Gerald Rothmann was asked to lead the department in the development of the MLC and last year Barbara (Gill) Rath (MSUM ’68) was hired as the Director.

The new program works as follows. All freshmen, entering fall 2001 or later, with an ACT Math score of 23 or less are required to take the MnSCU Intermediate Algebra Placement test. Sample questions were (and still are) available for prospective students to practice before Dragon Days on the MSUM homepage, http://www.mnstate.edu, then choose: Administrative Offices, Admissions, and finally Dragon Days Registration, then Sample Assessment Questions. Students not attaining appropriate cut-off scores on their placement exam are required to successfully complete Math 090, Elementary Algebra or Math 099, Intermediate Algebra. Although each of these courses meets 4 hours per week (2 lectures and 2 labs) the credits are not applicable to a degree. Aside from serving as a study/tutor center, the Mathematics Learning Center houses the laboratory portion of the Math 080 and Math 090 classes.

During the fall semester of 2001 more than 350 students (approximately one-third of the entering freshmen) enrolled in these developmental courses. The formal laboratory sessions proved to be very successful. Students were required to keep up with their coursework by actually solving (hands-on) problems during these sessions. The teachers in these classes reported that their students displayed excellent attitudes and felt comfortable while working in a non-threatening environment. Each laboratory session consisted of approximately 25-30 students, 2 faculty members and 2 student tutors. The students always kept the faculty and tutors busy providing assistance.

The department members believe some students perform better in a class than on a placement exam and that other students simply need a review prior to starting in Math 127, College Algebra. Hence last fall a “trailing” section of Math 127 was offered to accommodate the students who may have been misplaced. This was a wise decision, both politically and academically. Students performing at a high level in Math 099 were invited, after one month of instruction, to transfer free of charge into the credit carrying Math 127 class. Approximately one-third of the students who were invited to transfer declined the invitation. They felt comfortable in Math 099 and indicated they were learning valuable basics. Frankly, throughout the semester the vast majority of the students indicated they believed they were placed in an appropriate class. The 30 students who did transfer into Math 127 succeeded.

The long-term success of this program is still unknown, but the following observations appear positive.

- The success rate for students enrolled in Math 090 and Math 099 classes during the fall semester of 2001 was considerably higher than the success rate in prior years.
- During the fall term of 2000, very few students with low placement scores succeeded in Math 127 (even after repeating the course). In fact only 34 percent of all the students in Math 127 earned a grade of C or higher, whereas 43 percent earned a grade of D or higher. These two percentages rose to 58 percent and 73 percent for students during the fall semester of 2001.
- More importantly nearly all the spring 2002 Math 127 students, who completed Math 099 during the fall of 2001 succeeded.

So even though the Mathematics Learning Center is in its first year, it appears to be a success. We feel we succeeded in providing most students not only essential algebra skills, but also improved study habits and improved mathematical notation. They are now much more likely to have success in their first college level course.
Ritchie Scholarship Recipient

Angie Hodge, who is also one of the outstanding senior awardees cited on the front page, is the 2002 recipient of the Bill Ritchie Award for Excellence in Mathematics for graduate study in mathematics. This scholarship is named in honor of Dr. Ritchie who was a long time member of the department. Angie has been accepted at several graduate schools and has received excellent offers of scholarships and assistantships, and has chosen Purdue, Ritchie’s alma mater.

Wallen Scholarship Recipient

Mari Kautzman, graduate of Mandan High School and daughter of Gene and Cindi Kautzman, is the 2002 recipient of the James T. Wallen Scholarship for seniors in mathematics.

In addition to compiling an excellent academic record at MSUM Mari has been a math tutor, an officer in the Math Club and has participated on the MSUM volleyball team. She is a member of Kappa Delta Pi honor society and is currently the department's representative to the Student Advisory Board.

The Wallen Scholarship is awarded by the Mathematics Department to a rising senior and is named in honor of Jim Wallen who taught in the department for many years prior to his untimely passing. Contributions to the MSUM Foundation can be directed to this fund by specifying the Wallen Scholarship.

2002 Alumnus:

Dave Jacobson, ’80, continues as an Advisory Reliability Engineer at IBM Rochester where he’s been since 1983. He also serves as an Adjunct Professor at St. Mary’s University teaching statistics courses in the Graduate Management program.

Dave’s wife Deb is a biostatistician at the Mayo Clinic. They have two children, Justin, 10th grade and Emily, 7th grade. In Dave’s spare time he serves as the girls traveling coordinator for the Rochester Youth Soccer Association and as a coach for the Rochester Community Youth Basketball Association.

Dave Brunsvold, ’83, after 15 years teaching public school, earned his Master's degree in Math Ed and is teaching at Metropolitan State College of Denver. Concurrently, he is also pursuing a Master’s degree in Applied Mathematics at the University of Colorado.

Dave and his wife Kellogg have lived in Englewood, Colorado for the past 14 years. brunsvold@earthlink.net.

Ilo (Lewis) Myhra, ’83, has been employed by Keane, Inc. in Rochester, MN since 1992. Her current title is Principal/Software Consultant. Ilo is a member of the software technical support team at IBM in Rochester and primarily works on OS/400 and Client Access printing and troubleshooting. For fun she plays the French horn in the Rochester Civic Music Community Band. Ilo lives in Rochester with husband James, and their dog, Woody. ilomyhra@charter.net.

Scott LaChance, ’84, has changed companies from Habiador, a startup company developing content management software, to VisionCompass as a Senior Software Developer developing enterprise business software. In doing so, he’s joined forces with one of his long time mentors. The work is challenging and rewarding. Scott continues to do side projects in the software engineering arena. He is married to Jodi Boedeker (MSUM 1985) and they have three daughters Katherine (13), Aliza (10) and Erin (9). They reside in Kingston, WA. Scott coaches little league baseball and still plays music. Working mainly out of his home office, Scott enjoys the no-commute schedule and the flexibility it affords. scottla chance@centurytel.net

Tim Berg, ’86, is a math teacher at Fischer Public School in Crookston, MN. He also serves as the local union President. Tim is on the Board of Directors for the Minnesota Rural Education Association. He and his wife have two healthy daughters, 9 years old and 1½ years old. Tim reports that becoming a father again at 39 has its challenges and that his nine year old thinks she is 16. He and his wife consider themselves very blessed and keep active with church, family and friends.

Kathryn R. (Carlson) Noel, ’86, is in her 16th year of teaching math at Harlem Jr./Sr. High School in Harlem, MT. She has six-year-old son, Trent.

Kristi (Knutson) Eckman, ’86, is currently teaching math at Red River High School in Grand Forks, ND.

Jean Walker, ’87, is a Technology Specialist at Highland Park Jr. High in St. Paul, MN. She resides in Eagan, MN.

James Johnson, ’87, received his M.S. in Applied Math from Iowa State University (ISU) in August 1999. He spent one year (8/99 – 7/00) on a mission trip in Latvia (former USSR, eastern Europe) with Campus Crusade for Christ. James returned to ISU where he currently works on a Ph.D. in Animal Breeding and Genetics with a minor in Statistics. He notes that this is a great way to apply all of his math skills. James married Alison on May 4, 2001. johans@aistate.edu.

Donna (Hodnefield) Hoffman, ’89, is a mathematics teacher at Southwest High School in Green Bay, WI, where she lives with her husband Pat and their 7-year-old son Michael. She serves as Mathematics Department chairperson, and is advisor of the National Honor Society, freshmen class and coaches Academic Decathlon. Donna reports that she and her family enjoy boating, soccer and football. Although they live in Green Bay, her family remains MN Viking fans! phhoffman@gbonline.com

Kara (Rothmann) Herz, ’89, is finishing her fifth year working part-time for the United Postal Service. Last fall she filled in as Postmaster in Halstad, MN for several months. Kara and her husband still enjoy living on their farm in Hope, ND with their two busy girls, Kaitlyn, 11 and Morgan, 9.

The Problem Corner 2002

1. Start with two concentric circles of different radii. Suppose a chord of the larger circle has a length of ‘2a’ units and is tangent to the smaller circle. Determine the area of the region between the smaller and larger circles. It is interesting to note that your answer depends only on ‘a’ and not on the radii of the circles.

2. Smith, Brown and Jones agree to fight a pistol duel under the following unusual conditions. After drawing lots to determine who fires first, second and third, they take their places at corners of an equilateral triangle. It is agreed that they will fire single shots in turn and continue in the same cyclical order until two of the duelists are hit. At each turn the man who is firing may aim at whomever he pleases (or shoot in the air). All three duelists know that Smith always hits his target, Brown is 80% accurate and Jones is 50% accurate. Assuming that each individual adopts his best strategy and no one is killed by an unintended shot, who has the best chance to survive? The problem of determining each individual’s probability of survival is considerably more difficult.

To find solutions for these problems go to the MSUM website (www.mnstate.edu) and then go to the Mathematics Department webpage.
Scott Stephenson, ’89, has been employed for the same company for 11+ years, but finds himself this year as an employee of Microsoft as Great Plains Software was acquired by Microsoft last April. As a result, he now works for Microsoft Great Plains Business Solutions (MGPBS), a division of Microsoft. Scott’s official title is Senior Staff Consultant whereby he is a team leader for the Tools Support team in Fargo, ND. The team provides technical support via email and phone to developers who wish to create integrations and customizations to MGPBS’s business software. Basically, he spends most of his days helping to solve customer problems and providing training on MGPBS’s customization and integration tools. Scott resides in Moorhead and reports that he continues to enjoy what he does, which is a great feeling. sstephen8@cableone.net (h) sstephen@microsoft.com (w)

Jessi (Dahl) Mithun, ’90, reports that not much has changed with her since the last newsletter. She and husband Doug still reside in Moorhead, MN with their three sons, Zachary (11), Jacob (8) and Joseph (2). Jessi works at Community First Bankshares, Inc. as a Portfolio Systems Analyst. She says that with three boys, they’re kept busy keeping up with all their sporting activities: football, soccer, basketball & baseball. Jessi is also proud to state that the best school subject for both Zach (5th grade) and Jake (2nd grade) is MATH!!! jessi.mithun@communityfirst.com.

Veronica (Johnson) Lunde, ’90, teaches math at Gibraltar High School in Fish Creek, WI. She and husband Heath live in Egg Harbor, WI which is part of Door Peninsula or Door County, where Heath manages a resort. They have resided here for eight years after coming from Minneapolis, MN. They have two sons, Darin and Tony. Veronica is a Moorhead native and says “hello” to all her friends back here and invites them to visit her when in the area. vlunde@gibraltar.k12.wi.us.

Craig Conzemius, ’91, and wife Jody (Safar), ’91 MSUM, and their two sons, Matt (5) and Jack (3) reside in Becker, MN. Jody teaches in Big Lake, MN and Craig is a Financial Systems Analyst with Faegre & Benson LLP, a large law firm in Minneapolis. He sends complimentary regards to the staff and faculty of the Mathematics Department and cites that he has come away with a hugely beneficial education. While not directly necessary for his career, his Mathematics degree has been the foundation which has always put him ahead of the rest and has continued to be a major contributor to his success in past and present positions. Craig thrives on having his B.A. in Math on his resume and refuses to work with anyone or any company that does not recognize the power behind a Mathematics education. conzemius@sherbtel.net

Tim Doyle, ’94, resides in Phoenix, AZ with his wife who recently gave birth to their first child. He is currently working as an actuary for a large consulting firm, William M. Mercer, Inc. Both tasks keep Tim extremely busy! Tim.Doyle@us.wmmercer.com and www.wmmercer.com.

Brock Stenberg, ’94, received his BS in mathematics and in 2000 an MS in Curriculum and Instruction. He resides in Moorhead and teaches 9th grade at Discovery Jr. High in Fargo, ND. Brock writes that he enjoys getting the newsletter every spring and appreciates that the Math Department does it. stenbe@fargo.k12.nd.us.

Gretchen (Carlson) Kost, ’97, lives in Moorhead with husband Rob and their beagle, Scout. She works as a statistician for PRACS Institute, Ltd. in Fargo and is pursuing a Master’s degree in Applied Statistics at NDSU. Gretchen and Rob are grateful to live near so many family members and enjoy spending time at her parents’ lake cabin during the summer. robgretchkost@hotmail.com

Joella Ackerman, ’96, resides in Chicago, IL. In January of 2000, she accepted a position as Financial Assistant in the Endocrinology Division at Northwestern University’s Feinberg School of Medicine in Chicago. In May of 2001 Joella was promoted to Coordinator of Finance for the same division. She works on a wide variety of projects relating to the financial status and commitments of the division. j-ackerman@northwestern.edu