

Fall

Mathematics News

University of Idaho

2004

Actuarial Science Changes



To become an actuary you need to pass a series of exams. The Society of Actuaries is in the process of changing the exam structure but the Society is making only minor changes in the courses that you should take. In the new structure, some subjects will be listed as pre-requisites, some subjects will be validated by educational experience, and other subjects will be tested by examination.

The pre-requisite subjects are necessary background for the exams and subsequent courses. They will not be tested directly. The pre-requisite subjects are:

- Calculus
- Linear Algebra
- Introductory Accounting
- Business Law
- Mathematical Statistics

The subjects that will be validated by educational experience are:

- Economics
- Corporate Finance
- Applied Statistical Methods

For these subjects you will need to submit transcripts and course descriptions. The particular courses and the details have yet to be announced.

The first examination is on probability. It will essentially be the probability portion of the current Society of Actuaries Exam 1.

Full details of the change will be announced later this year. The change in our Actuarial Science option will be minor. You, however, may graduate from UI using the catalog in effect when you were admitted or any subsequent catalog. Ralph Neuhaus (302 Brink Hall) can advise you on how you will fit the new Society of Actuaries requirements.



Elna Grahn Polya Scholar Award



*Judith Totman Parrish (dean of the College of Science),
Elna Grahn, Angela Windley, Monte Boisen*

At the Spring commencement reception ANGELA WINDLEY became the first recipient of the Elna Grahn Polya Scholar Award. Angela excelled as an undergraduate student working in the Polya Math Learning Center and in her mathematics education course in which she created an exemplary project. She plans to be a high school Math teacher in Idaho. The University of Idaho derives great pride from providing the state with such a talented and dedicated young person.

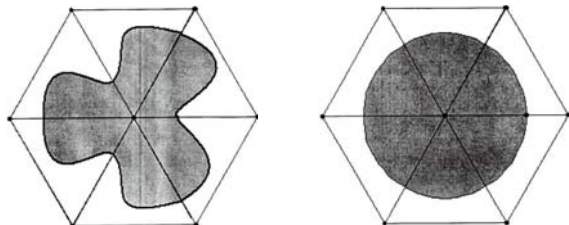
This award was initiated by Professor Elna Grahn and two other donors to recognize a student who has demonstrated excellence in and commitment to the application of technology in the teaching of Mathematics. Thanks to the gifts of three major donors, we are about a third of the way to our \$20,000 goal for this scholarship fund.

Elna Grahn retired in 1969 from UI as a Professor Emeritus of Mathematics. She had taught here for 22 years and was a pioneer in the use of television in teaching. Through her efforts, a tutorial lab was established for students taking Mathematics classes. It was the precursor to the current Polya Mathematics Learning Center. Elna has taught mathematics at the high school, junior college, and university level. She was one of the first officers in the Women's Army Corp in WWII, leaving the service as a Major.

Math Puzzler Solutions

#1

The curve is a circle with center at a vertex. Repeatedly reflect the triangle and the curve, keeping one vertex fixed. The triangles generate a regular hexagon, the curve generates a region with half the area of the hexagon. The curve will have minimum length when the region is a circle.



#2

January 5, 1980.

x must be 45 since $44^2 = 1936$, $45^2 = 2025$, $46^2 = 2116$. This means that she was born in 1980 and her current age is 24. January 5 satisfies the other condition, December 6 also satisfies the other condition.

Outstanding Senior in Mathematics



Sean Haler

At the Spring commencement reception SEAN HALER was given the 2004 Outstanding Senior Award in Mathematics. This award is presented annually to the senior who has shown exceptional mathematical talent. Each student honored is given a cash award and is recognized on an engraved plaque in the Mathematics Department office.

Sean's instructors say that he is a quiet, dedicated student who soaks up mathematics like a sponge. He especially likes to solve difficult problems.



Recent Graduates

KARI ANDERSON graduated in December 2003 with a Master of Arts in Teaching Mathematics degree. She earned a Bachelor of Science degree in Secondary Education from UI in 2001.

BENJAMIN BAKER graduated in December 2003 with a Bachelor of Science degree in Applied Mathematics.

JEREMY BECKMAN graduated in May 2004 with a Bachelor of Science degree in Mathematics. This summer he began graduate school in Education at the University of Minnesota.

TRAVIS BEMROSE graduated in December 2003 with a Bachelor of Science degree in Mathematics.

VICKI BRYANT graduated in May 2004 with a Master of Arts in Teaching Mathematics degree.

MARY BUCHANAN graduated in August 2004 with a Bachelor of Science degree in Mathematics.

DANIEL BURTON graduated in May 2004 with a Master of Science degree in Mathematics. He earned a Bachelor of Science degree in Mathematics from UI in 2001. He is lecturer in Mathematics at UI.

MISTI FOWLER graduated in May 2004 with a Bachelor of Science degree in Mathematics. She is a graduate student in Mathematics at UI.

DENNIS GAMMEL graduated in December 2003 with a Bachelor of Science degree in Applied Mathematics.

SEAN HALER graduated Summa Cum Laude in December 2003 with a Bachelor of Science degree in Mathematics. He won the Dean's Award and the Outstanding Senior in Mathematics Award. He has become the youth minister at a church in Salem, Oregon.

JOHN HARRISON graduated in May 2004 with a Bachelor of Science degree in Applied Mathematics and Computer Science.

NATHAN HINDS graduated in May 2004 with a Bachelor of Science degree in Mathematics.

CHELSEA HUFFMAN graduated in May 2004 with a Bachelor of Science degree in Applied Mathematics.

JESSE HUSO graduated in May 2004 with a Bachelor of Science degree in Mathematics and Physics. He won the Dean's Award and the Luke Award for the Outstanding Senior in Physics.

JOSHUA JONES graduated in August 2003 with a Master of Arts in Teaching Mathematics degree.

AMBER JOLLY graduated in May 2004 with a Master of Arts in Teaching Mathematics degree. She earned a B.S. Ed. in Elementary Education from UI in 2002.

CURTIS KING graduated Summa Cum Laude in May 2004 with a Bachelor of Science degree in Applied Mathematics and Business.

TU LE graduated in May 2004 with a Bachelor of Science degree in Applied Mathematics.

ZHONGXIAO LI graduated in May 2004 with a Master of Arts in Teaching Mathematics degree. He is a graduate student in Mathematics at UI.

ANDREW LONG graduated in August 2003 with a Bachelor of Science degree in Applied Mathematics. He is now in the Peace Corps in South Africa teaching Mathematics.

CINDY LONGHURST graduated in December 2003 with a Master of Arts in Teaching Mathematics degree.

ERIC MACK graduated in May 2004 with a Master of Science degree in Mathematics. He earned a Bachelor of Science degree in Mathematics from UI in 2002. He is a lecturer in Mathematics at UI.

GEETA MENON graduated in December 2003 with a Bachelor of Science degree in Applied Mathematics. She is a graduate student in Computer Science at UI.

STEVE NIEMEYER graduated in May 2004 with a Master of Arts in Teaching Mathematics degree.

RUTH PATCHING graduated in December 2003 with a Bachelor of Science degree in Mathematics. She is attending Portland State University, working on a M.S. in Special Education. She plans to become a teacher of the visually impaired.

NICOLE RYNEARSON graduated in May 2004 with a Master of Arts in Teaching Mathematics degree.

JAIMOS SKRILETZ graduated in May 2004 with a Master of Science degree in Mathematics. He earned a Bachelor of Science degree in Mathematics from UI in 2000.

JAMES TESTON graduated in May 2004 with a Bachelor of Science degree in Mathematics.

KIM THEIN graduated in May 2004 with a Master of Arts in Teaching Mathematics degree.

WILLIAM THOMPSON graduated in May 2004 with a Bachelor of Science degree in Mathematics.

LYNNE TOWER graduated in December 2003 with a Bachelor of Science degree in Applied Mathematics. She is a graduate student and a teaching assistant in Statistics at Ohio State University.

SARAH WALLER graduated in December 2003 with a Bachelor of Science degree in Applied Mathematics and Economics. She is working for Regence Blue Shield in Lewiston.

ANTHONY WILLIAMS graduated in May 2004 with a Bachelor of Science degree in Applied Mathematics.

DANHONG ZHANG graduated in May 2004 with a Doctor of Philosophy degree in Mathematics. Danhong's thesis title was "Disjoint Cycles in Graphs and Directed Graphs" and her major professor was Hong Wang. She is a lecturer in Mathematics at UI.



Congratulations Dr. Zhang!



Danhong Zhang with her advisor, Hong Wang, at graduation in May

Temporary Lecturers For The Fall

We are fortunate that several experienced instructors are willing to teach one or more mathematics courses!

DANIEL BURTON earned his M.S. in Mathematics from UI in May and his B.S. in Mathematics from UI in 2001.



SUZANNE CAZEAU earned her B.S. in Mathematics from UI in 1995. She is currently working on her Master's degree at UI.

ERIC MACK earned his M.S. in Mathematics from UI in May and his B.S. in Mathematics from UI in 2002.



GARY PETERSON earned his J.D. from UI in 2000. He earned his M.S. in Electrical Engineering and his B.S. in Computer Science, both from UI.

BILL ROYALTY retired from UI in 2002. He earned his B.A., M.S., and Ph.D. degrees from the University of Iowa.



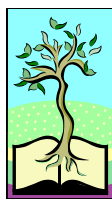
JENNIFER SHASKA earned her M.A. degree in Mathematics from Ohio State University. She earned her B.S. degree in Mathematics and Secondary Education from West Virginia University.



MARY VOXMAN retired from UI in 2003. She earned her B.A. and M.S. in Mathematics from the University of Iowa.

ANGELA WINDLEY will receive her B.S. in Mathematics degree from UI in December. As an undergraduate she worked in the Polya Center.

DANHONG ZHANG earned her Ph.D. in Mathematics from UI in May. She earned her B.S. degree from Wuhan University.



You can learn more about the UI Math Department by visiting our website:

www.uidaho.edu/math

Putnam Competition

Have you ever participated in a Math contest? Now is your chance. Each year early in December the Mathematical Association of America conducts the Putnam Competition for math students throughout the United States and Canada. If you have had a variety of math courses and enjoy challenging problems see Ralph Neuhaus in Brink 302 for details. You can join our seminar (Math 400) which helps you prepare for the exam.

In the 2003 competition MATT PETERSEN did well. He placed in the top one third of the math students participating. The UI team was ranked 144th in the U.S. out of more than 300 universities participating. MATT PETERSEN, SEAN HALER, and PETER MARCY were the team members.

Congratulations on a Job Well Done!



Dean's List

Each semester the Dean of the College of Science lists those students who have received a grade point average of 3.3 or better and have taken at least 14 credits for a letter grade. The Mathematics majors on the Spring 2004 Dean's List are:

DANIEL AGTE	AARON BLUE
RYAN BLUE	JOSHUA BURNS
MELISSA CURD	KATIE DAVES
EMILY DENN	ERIC EDWARDS
MISTI FOWLER	JONATHAN GAFFNEY
JILLIAN GULMAN	JOHN HAMILTON
BRIAN HANSEN	CHELSEA HUFFMAN
JESSE HUSO	TYREL JOHNSON
MICHELLE KALMAN	CURTIS KING
TIMOTHY LINDSAY	PETER MARCY
ERIK MENTZE	TYLER MESERVY
TERREN MUSSELWHITE	DMITRIY MYEDVYEDYEV
DAVID NADLER	JOE NUTTING
MATTHEW PETERSEN	FAUNA SAMUEL
MICHAEL SHAW	ADAM SUK
WOR THONGTHAI	KATHRYN TOMASZEWSKI
STEPHEN TRATZ	BRIANNA TWEEDY
BRADLEY WALKER	REBECCA WERNHAM

Congratulations!

Pi Day and the Integration Bee



Brian Standley, Brad Walker, and Peter Marcy

The second annual "Integration Bee" - an event like a spelling bee, but with calculus - was held as part of our "Pi Day Eve" celebration (Pi Day is March 14 - that is, 3/14.).

Peter Marcy was the champion for the second year in a row. Brad Walker and Brian Standley were runners up.



Some of the participants hard at work during the 2004 Integration Bee

Math major Layne Lund enjoying some Pie during the 2004 Pi Day festivities.



Prize Problem Winners

Students who won a prize book for their solutions to the Prize Problems in the Spring Math News are:

HANS RUSSELL-EGBERT
 JASON BOLINE
 BLAKE BRACKIN
 PETER MARCY
 BRYAN ROSSEBO
 JOSHUA BURNS
 JOHN RUSH
 CHINGIZ MADAKHMETOV
 MICHELLE JEITLER



Alumni who won a prize book for their solutions to the Prize Problems in the Spring Math News are:

RYAN MULLEN
 DAVID FERGUSON
 LARRY WEILL
 KEITH STUTLER
 NANCY DICK STUTLER

Congratulations to all of the winners!



Student Honors



GRANT GUAN won one of the student awards for best poster at the Graduate Student Association exhibit in April. The Sigma Xi honor society also gave him the award for the best overall poster at the exhibit.

ZAID ABDO won an award for student presentations at the meeting of the Pacific Northwest regional evolution group. Zaid also won an award for the best poster in his division at the Graduate Student Association exhibit in April.



ERIC MACK received the UI Alumni Award for Excellence at an Alumni banquet in December.



DAVID THOMAS was promoted to Professor of Mathematics. He is well known for integrating the web into his courses on mathematics education and geometry. He is a national leader in the development and dissemination of technology-enriched resources for mathematics teachers. He has written a text book, *Modern Geometry*, for secondary education math majors. He came to UI in 2002 from Ball State University and Montana State University. Dave was one of three faculty members given the University's Award for Excellence in Teaching. He initiated the Idaho Math Academy, which is geared toward improving mathematics preparation of Idaho school teachers. He has developed a robotics project for elementary school students at the Palouse Science Center in Pullman.

MONTE BOISEN received the UI Alumni Award for Excellence at an Alumni Banquet in December.



TERESA BEISER joined the Mathematics Office staff as the new Office Specialist. Teresa previously worked in the Registrar's Office at UI and received her Bachelor's degree from UI.

ARIE BIALOSTOCKI is on sabbatical leave for the year. He will collect material for a book on the Erdős-Ginzburg-Ziv Theorem and will continue his research in Moscow in the Spring.



DORA BIALOSTOCKI is on leave for Fall semester. She and Arie are in Israel for the semester.



PAUL JOYCE and STEVE KRONE each gave talks at the Evolutionary Biology Meeting at Port Townsend, Washington in April, at the Durham Symposium on Mathematical Genetics of the London Mathematical Society in July, and at the Banff Workshop on Stochastic Processes in Evolutionary and Disease Genetics in August.

FRANK GAO gave a talk at the International Indian Statistical Association Conference at Athens, Georgia in May and at the Gaussian Measure and Geometric Complexity Meeting at Salt Lake City in July.



HONG WANG gave a talk at the Seventeenth Cumberland Conference on Combinatorics, Graph Theory, and Computing at Murfreesboro, Tennessee in May.

ROLAND FLEISSNER attended the Evolutionary Biology meeting at Port Townsend, Washington in April.



CLANCY POTRATZ will conduct Data Analysis Workshops for teachers in the Caldwell, Cascade, and Kimberly School Districts. The purpose is to use data-producing activities to motivate the concepts of probability and statistical analysis for middle school students.



STEVE KRONE attended the National Institute of Health Lariat Meeting at Bozeman, Montana in July and the 10th International Symposium on Microbial Ecology at Cancun, Mexico in August.

BROOKS ROBERTS will study the theory of representation of a particular algebraic group over a nonarchimedean field. It is funded, in part, by a grant from the National Science Foundation.



FRANK GAO will begin a three-year study of small deviation. It will establish the connections among Harmonic Analysis, Probability Theory, and Spherical Converse Geometry. It is funded, in part, by a grant from the National Science Foundation.



JOSE PONCIANO attended the Evolutionary Biology Meeting at Port Townsend, Washington in April and the Evolution 2004 Conference at Fort Collins, Colorado in June.

For the next three years DAVE THOMAS and others will conduct summer workshops for Coeur d'Alene elementary and middle school teachers. Part of the goal is to integrate computer technology into the mathematics curriculum. The workshops are being funded by a grant from the Idaho Department of Education.

Request for Alumni News

We would like to hear from you!

If you have some news/information about yourself that you would like printed in the next Math News, please send your information to Jaclyn Gotch at jclark@uidaho.edu or to: Department of Mathematics, University of Idaho, PO Box 441103, Moscow, ID 83844-1103.

Please include as much of the following as possible:

- Name
- Year you graduated from UI
- Degree and Major at UI
- Current Occupation
- News about yourself
- Comments, corrections, additions for newsletter

DANIEL FRAZIER received a Master of Science degree in Statistics from UI in 2004. He earned a Bachelor of Science degree in Mathematics from UI in 2002.

JAR SHANG JONG received a Master of Science degree in Statistics from UI in 2004. He earned a Bachelor of Science degree in Mathematics from UI in 2002.

RICH BARNHART is teaching at Grace College in Winona Lake, Indiana. He received his Ph.D. in Mathematics from UI in 1972.

JOHN TAYLOR has published a collection of essays *Paths to Contemporary French Literature* and will be published again this fall with a collection of stories *Now the Summer Came to Pass*. John graduated from UI in 1974 with a Bachelor of Arts degree in Mathematics.



CHUCK IWASHITA is an Assistant Professor of Mathematics at the University of Illinois at Springfield. He was a graduate student in Mathematics at UI. He earned his Ph.D. in Mathematics from the University of Illinois at Urbana-Champaign in 1999. He has taught at Truman State University in Missouri and at Eastern Washington University.

DAVID PRESTWICH works for Pacific Simulation in Moscow. He received his Bachelor of Science degree in Mathematics from UI in 1995.

WILLIAM FLETCHER has retired from the faculty at North Carolina Central University. He is an active member of a volunteer income tax preparation group. He received his Ph.D. from UI in 1966.

JARED SCHOLTEN is working in Omaha, Nebraska for Mutual of Omaha as a Senior Actuarial Assistant. He graduated from UI in 2000 with a B.S. in Applied Mathematics.

KEITH STUTLER worked for Microsoft for 15 years and now works for a small company that makes an operating system for cell phones. He graduated from UI in 1987 with a B.S. in Mathematics.

NANCY DICK STUTLER worked for 5 years with an employee benefits consulting firm. She and her husband Keith have two children. She graduated from UI in 1987 with a B.S. in Applied Mathematics.

DAVID FERGUSON has been retired as Professor of Mathematics at Boise State University since 1998. He now hikes in spurts from April until the snow flies. He and his wife enjoy duplicate bridge. He graduated from UI in 1970 with a Ph.D. in Mathematics.

NICK HAYES earned a Master's degree in Education from Western Washington University in Bellingham, Washington. He got married on July 31. He earned a B.S. in Mathematics from UI in 2001.



Departures



INNA POLITAYKO and her husband Eduard Gluschenko had a baby girl in May and have returned to the Ukraine. Both earned masters degrees from UI. Inna was a lecturer in Mathematics in 2003-2004.

ROMAN MAKORDEY will be working for Progressive Auto Insurance in Cleveland, Ohio in the Actuary Department. He earned his M.S. in Mathematics from UI in 2003 and has been a lecturer in Mathematics.



KEN ZIMMERMAN has returned to a job in New Mexico.



New Graduate Students



CRAIG BEISEL received his bachelor's degree in Mathematics from UI in 2001. He is a Ph.D. candidate in Mathematics and a Teaching Assistant in Mathematics.

MISTI DAWN FOWLER received her bachelor's degree in Mathematics from UI in 2004. She is a M.S. candidate in Mathematics and a Teaching Assistant in Mathematics.

SERGIY KRASNOZHON received his bachelor's degree in Mathematics from Odessa University in the Ukraine in 2001. He is a M.S. candidate in Mathematics and a Teaching Assistant in Mathematics.

ZHONGXIAO LI received his Master of Arts in Teaching Mathematics degree from UI in 2003. He received his bachelor's degree from Foshan University. He is a Ph.D. candidate in Mathematics.

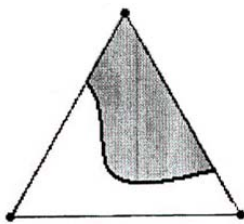
CHIN NG received a bachelor's degree in Chemical Engineering in 1999 from the University of Oklahoma and a bachelor's degree in Computer Science in 2004 from Minnesota State University – Moorhead. He is a M.S. candidate in Mathematics and a Teaching Assistant in Mathematics.



Math Puzzlers

#1

What is the curve of minimum length that will bisect the area of an equilateral triangle?



#2

A woman wants to be coy about her age. On August 1, 2004 she says that she will be x years old in the year x^2 . "If the number of my years is added to the number of the month in which I was born the result is the square of the day of the month on which I was born."

What is the date of her birth?

Math Puzzler solutions can be found on Page 2!