Ashland University has been identified as having one of the best values in Actuarial Science programs in a recent ranking by Online Accounting Degree Programs. AU is one of only three schools in Ohio to make the top 40 list of actuarial degree programs in the country.

“We examined all of the Bachelor of Actuarial Science programs in the United States and then ranked them based on graduation rate, quality of curriculum, student appeal, net price, and having been named a ‘Center for Actuarial Excellence’,” said Laura Kilmartin, online relations for Online Accounting Degree Programs.

Kilmartin said, “Our editors noted that AU promises its students will get to know their actuarial professors on a personal basis, and AU’s close-knit program promotes plenty of collaboration and socialization within the actuarial science major and the Department of Mathematics and Computer Science.”

Dr. Christopher Swanson, professor of mathematics at Ashland University, was pleased with AU’s ranking in the Top 40.

“When I developed that actuarial science program at Ashland University in 2009, I did so as I believed our faculty would be able to effectively prepare students for passing the professional actuarial exams and for starting their actuarial careers, with individual attention that students often do not receive at larger universities,” Swanson said. “I am very pleased to see Online Accounting Degree Programs has recognized our success in accomplishing this by ranking us among the top 40 actuarial science programs in the nation based on value of education.”

The Online Accounting Degree Program’s mission is to help prospective graduate students make informed decisions about what kind of degree to pursue and where to study. The article and online ranking can be found at -- http://www.online-accounting-degrees.net/best/top-values-bachelor-actuarial-science-degree-programs-2016/
William Lowell Putnam Competition

The 76th annual William Lowell Putnam Mathematical Competition was held on Saturday, December 5, 2015. The William Lowell Putnam Mathematical Competition began in 1938 and is designed to stimulate a healthy rivalry in mathematical studies in the colleges and universities of the United States and Canada. William Lowell Putnam, a member of the Harvard class of 1882, believed in the “merits of an intellectual intercollegiate competition.” Elizabeth Lowell Putnam created a fund in 1927 in honor of her late husband known as the William Lowell Putnam Intercollegiate Memorial fund. The first competition was in the field of English and then a few years later another competition was held in mathematics between two institutions.” It was not until after her death in 1935 that “the examination assumed its present form and was placed under the administration of the Mathematical Association of America” (The Mathematical Association of America, Exam Brochure).

The results of the 2015 Putnam Mathematical Competition are in and Ashland University had one student receive a non-zero score. Congratulations to Michael Woode for his score of 10. The students that participated in the 2015 William Lowell Putnam Mathematical Competition were: Grace McCourt, Paul Pernici, Emily Marconi, Michael Woode and Charles Michel. They worked on six problems from 10 a.m. to 1 p.m. and then six more problems from 3 to 6 p.m. Typically, 50% of the people who enter this competition nationwide (and in Canada) receive 0 points on it.

A total of 4,275 students from 554 colleges and universities in Canada and the United states participated in the 2015 Competition. Of the 4,275 participants, 2,367 received scores of 0, 343 received scores of 1, 761 received scores between 1 and 9, and 405 received scores of 10. Thus, Michael Woode did better than 73.2% of students taking the exam and at least as well as 82.6% of students taking the exam.

Paul Pernici, 2015 graduate, holds the highest score and is an AU student. Pernici’s score was an 18. Andrew Rowe, 2006 graduate, still holds the record for highest percentile rank, doing better than 76.2% of students taking the exam and at least as well as 82.7% of students taking the exam.


Congratulations, Michael Woode, for receiving a non-zero score!
PRESENTATIONS:

URCA Presentations

Ashland University’s College of Arts and Sciences hosted its 7th Annual Undergraduate Research and Creative Activity Symposium. This is an opportunity for students to present their scholarly and creative work. Approximately 69 students’ works were featured.

The April 12, 2016 symposium was held from 9 a.m. to 4:30 p.m. in the John C. Myers Convocation Center. The students presented original research, performed theatrical and musical selections, read original creative writing and exhibited their artwork. This gives the College of Arts and Science undergraduate students the opportunity to “make original intellectual and creative contributions to their disciplines early in their careers” (2015 CAS Symposium Catalog).

The Dean of the College, Dr. Dawn Weber, shared the following facts in a letter concerning the CAS Symposium, “Recently, Gallup, Purdue University and the Lumina Foundation released a study on the connection between undergraduate experience and life-long success. Researchers examined results of a web survey completed by a nationally representative random sample of 29,560 respondents who had internet access, were at least 18 and held a bachelor’s degree. They measured how engaged respondents were in their work, as well as their community, physical, financial and social well-being.

Researchers found that six elements of an undergraduate experience had a significant effect on students’ post-graduation success:

1. A professor who made them excited to learn;
2. A professor who cared about them as individuals;
3. A mentor who pushed students to reach their goals;
4. Working on a long-term project;
5. Completing a job internship related to classroom lessons;
6. Being engaged in extracurricular activities and groups;

Four of the six elements identified above exist in the undergraduate research and creative activity symposium.”

The following Math and Computer Science students participated this year: Raymond Acevedo, Abdullah Aldhifyan, Abdullmohsen Alsalmam, Zach Brown, Omar Busheel, Victoria Gruber, Joseph Hemperly, Ashley Herman, Rupesh Maharjan, Grace McCourt, Dylan Moats and Paul Pernici.

Victoria Gruber Accepting Award from Dr. Iyad Ajwa
Victoria Gruber, “Enhanced Techniques for Performing Base N Arithmetic and Conversion,” faculty advisor, Dr. Iyad Ajwa.

Grace McCourt Accepting Award from Dr. Chris Swanson
Grace McCourt, “Cover Pebbling Numbers,” faculty advisor, Dr. Chris Swanson.

Paul Pernici
Paul Pernici, “A Population Growth Model with Time-Dependent Carrying Capacity,” faculty advisor, Dr. Chris Swanson.

Omar Busheel, Abdullah Aldhifyan, Zach Brown, Rupesh Maharjan, Dr. Iyad Ajwa, Dylan Moats, Abdullmohsen Alsalmam and Ashley Herman. (Not pictures are Raymond Acevedo and Joseph Hemperly.)

**Actuary News**

**What is an actuary?**

CareerCast.com ranks careers on the basis of work environment, income, job growth outlook and on-the-job stress. Actuary has been consistently in the top 10 for the past several years.

Actuaries are trained in risk management. They solve a variety of problems related to risk, such as determining premiums for insurance companies, helping companies establish their retirement plans, developing life insurance products and assisting banks in managing their assets and liabilities and developing ways to manage their financial risk. Actuary Science takes a combination of strong analytical skills, business knowledge and understanding of human behavior.

Actuaries increase their skills and professional status by taking a series of tests over various materials. These tests may be taken while still in college and/or while on the job.

**Joel Moseman ’15** passed the MFE Exam.
**Katherine Hurley ’16** passed Exam P.
**Michael Byndas** passed Exam P.

Congratulations, Michael Hudec, on your 2016 Summer Internship! Michael Hudec, a senior, in the AU Math and Computer Science department completed an actuarial internship at Benchmark Insurance during the 2016 summer break. He will gain experience with employee benefits. Again, congratulations, Michael Hudec.

Congratulations, Michael Byndas, on your 2016 Summer Internship. Michael Byndas, a senior in the AU Math and Computer Science department completed an actuarial internship at Westfield Insurance during the 2016 summer break. Again, congratulations, Michael Byndas.

**STUDENT NEWS:**

Congratulations to our December 2015 and May 2016 Graduates

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**2015-2016 Math and Computer Science Outstanding Students**

The 2016 Honor’s Reception for the Math and Computer Science Department was held on April 27, 2016. Students were awarded for a GPA of 3.5 in their Math and Computer Science courses. In addition, there were outstanding student awards, graduates, scholarship recipients, Pi Mu Epsilon new inductees, ACM officers, MAA officers, UPE officers, presentation, participation and student worker recognitions. Congratulations to all students who were awarded.

The following students were chosen to receive outstanding awards for their grade level.

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_Images of students and awards._

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Outstanding Sophomores: Emily Law and Brady Douglas

Outstanding Juniors: Ryan Bastian, Linda Morales, Michael Byndas and Grace McCourt

Outstanding Seniors: Katherine Hurley and Rupesh Maharjan

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**2016 Class of**

- Jacob Ackerman
- Abdullah Aldhifyan
- Zach Brown
- Brenda Forbes
- Cam Goodson
- Alex Gregory
- Joseph Hemperly
- Ashley Herman
- Katherine Hurley
- JW Junker
- Shelby Linder
- Alexandra Kovarik
- Alexander Lillich
- Emily Marconi
- Charles Michel
- Paul Pernici
**Math Club News**

The Math Club (Mathematical Association of America Student Chapter, MAA) meets bi-weekly during the school year with 10-15 students. At most meetings they play math-related games, but also have themed meetings such as mathematical pumpkin carving, mathematical puzzles, the mathematics of voting and Pi-day.

**2015-2016 Outstanding Student Awards for Calculus, Discrete Mathematics and Introductory Computer Programming**

**Cori Borton** received the Carpenter Award for Outstanding Calculus Student.

**Jessica Shrider** received the Wendling Award for Outstanding Discrete Mathematics Student.

**Nathan Ahrens** received the Poorman Award for Outstanding Introductory Computer Programming Student.

**Outstanding Calculus Student, Cori Borton**  
**Outstanding Discrete Mathematics Student, Jessica Schrider**  
**Outstanding Computer Programming Student, Nathan Ahrens**

MAA Student Chapter Officers for the 2015-2016 year were: President: Michael Byndas; Vice-President: Alyssa Predota; Secretary: Susanne Silvernail; Treasurer: Becca Stettin. Faculty Adviser was Dr. Darren Wick.

**The Problem Solving Group**

The PSG group was formed in the fall of 2011 by Dr. Gordon Swain. The group meets bi-weekly throughout the academic year to discuss and attempt to solve mathematical problems posed in scholarly journals.

The Problem Solving Group (PSG) at Ashland University, submitted four problems last year. They received acknowledgement for three correct solutions and their solution to Problem 5332 from School Science and Mathematics website (April 2015) was selected to be published. Click on the attachment to see the solution to problem 5332. (PDF: SSMA 5332-1.pdf)

Congratulations to the Ashland University PSG (Problem Solving Group). Their solution to Problem 5362 from the School of Science and Mathematics website (January 2016) was selected to be published! Grace McCourt was the primary author of this solution. Way to go, Grace and the other members of the Problem Solving Group! Click on the attachment to see the solution to problem 5362. (PDF: SSMA 5362-1.pdf)

The February 2016 issue of the Math Horizon gave credit to Charlie Michel for submitting a correct solution to Problem 329. He worked on Problem 329 in his Math Seminar class. Click on the attachment to see the solution to Problem 329. (PDF: Math Horizon Charles Michel.pdf).
ASSOCIATION OF COMPUTING MACHINERY (ACM) NEWS

The Ashland chapter of ACM is the active organization for students interested in the field of computer science. The club meets bi-weekly and attends the regional ACM competition every year. The meetings revolve around the collective interest in computers, gaming and programming. ACM has entertained the campus with various events, including the annual Ester Egg Hunt, where they collaborate with Ashland’s Mathematical Association of America Club.

ACM STUDENT CHAPTER OFFICERS for 2015-2016 were: President: Ben Bushong, Vice-President: Rupesh Maharjan, Treasurer: Ashley Herman. The faculty advisor was Dr. Darren Wick.

Upsilon Pi Epsilon Honorary Society (UPE) News

Upsilon Pi Epsilon (UPE), is an international honor society for the computing and information disciplines, first organized at Texas A&M University in 1967. Today, this international organization consists of chapters at colleges and universities throughout North America and overseas. The mission of UPE is to recognize academic excellence at both the undergraduate and graduate levels in the computing and information disciplines.

Ashland University’s UPE Chapter was formed in January 2002. Sophomore, junior and senior computer science majors who meet the eligibility requirements are invited to join this prestigious honorary. Eligibility is based on progress in computer science coursework, grades earned from computer science courses and a student’s cumulative grade point average. There were no new inductees for the 2015-2016 academic year.

The new inductees for 2015-2016 were: Ryan Bastian, Kali Bolen, Michael Byndas, Kelly Crowl, Dani Czekaj, Michael Hudac, Katherine Hurley, Ivan Larson, Alex Lillich, Rupesh Maharjan, Grace McCourt, Charlie Michel, Linda Morales, Alyssa Predota, Alexandria Sandwisch, Alek Schemine, Taya Schalz, Susanne Silvernail, Rebecca Stettin and Morgan Wiles.
Grace McCourt received a Pi Mu Epsilon Student Award at the National MAA’s MathFest Conference. Her presentation was based on the research she is doing with Dr. Chris Swanson for her Honor’s Capstone Project, as well as some research she has done this summer under the Good Award.

To the best of knowledge, McCourt, is the first Ashland University student to receive the PME Student Speaker Award. Join the Math and Computer Science department in congratulating, Grace McCourt, on this accomplishment.

Charlie Michel, a senior majoring in mathematics, has been awarded the Pat Browne Undergraduate Paper Award by the Midwest Popular Culture Association. Michel was recognized at the association’s conference in Cincinnati, OH on Oct. 1-4, 2015. The Pat Browne Undergraduate Paper Award recognizes the best paper presented by an undergraduate at the Midwest PCA/ACA conference.

Fun ways to learn math! Dr. Swanson’s Modern Geometry class crocheted hyperbolic planes. Pictured are Linda Morales and Becca Stettin learning about hyperbolic planes through crocheting.
Alumni, We’d Love to Hear from YOU!

Keep in touch! It’s encouraging to our faculty and current students to see where your AU degree takes you! Notes, news or updated contact information may be sent via e-mail to vralph@ashland.edu or mailed to Ashland University Department of Mathematics and Computer Science, 401 College Ave. Ashland, Ohio 44805.

Name ___________________________________________________________ (Maiden) _____________________________________________

Major __________________________________________________________ Year of Graduation ________________________________

Address __________________________________________________________

E-mail Address __________________________________________ Occupation/Title ________________________________________

What you are up to: ________________________________________________________________

____________________________________________________________________________________

If you are interested in making a gift to support endowed scholarships, or department programs, please contact the AU Development office at 419.289.5620, or you can give on-line http://secure.qgiv.com/for/ashuni/. Your continuing support is important to the success of our program and our students!
Faculty News

**Dr. Iyad Ajwa** was named chair of the Math and Computer Science Department beginning the 2014-15 academic year. Dr. Ajwa completed the Fulbright U.S. Scholar Program. He spent the 2013-14 academic year at Umm Al-Quara University in Mecca, Saudi Arabia. He returned to Ashland University main campus for the 2014-15 academic year where he took on duties as a professor and the chair of the department.

**Dr. Boris Kerkez** was elected and served as the Faculty Senate Secretary during the 2013-2014 academic year. He also served on the Executive Committee of the Faculty Senate. He is the co-advisor for the ACM Student Chapter at Ashland University, and has traveled with the ACM teams to Youngstown University for the ACM ECNA Regional Programming Contest in November 2013.

**Dr. Gordon Swain** will continue to teach full time this year, including a variety of courses, from Calculus I to Introduction to Modern Algebra. He also will continue advising Pi Mu Epsilon, the mathematics honorary. He was very pleased to help induct 20 new members in April and anticipates an active year for the honorary.

**Dr. Chris Swanson** is currently the President of the Ohio Section of the Mathematical Association of America. His recent research has been on Costas arrays in collaboration with Bill Correll, Jr. of MDA Information Systems and Randy Ho of Garmin International, with their paper “Enumeration of Parallelograms in Permutation Matrices for Improved Bounds on the Density of Costas Arrays” appearing in the Electronic Journal of Combinatorics. In April, he presented a contributed paper entitled “Enumeration of Violations to the Costas Property in Identity Matrices” at the Spring Meeting of the Ohio Section of the MAA. In addition to teaching mathematics, he is also the director of the university Honors Program. He will be on Senior Study Leave during the 2016-2017 academic year, though will remain in Ashland as he continues to direct the Honors Program. In 2014, Dr. Swanson was awarded the Award for Distinguished College or University Teaching of Mathematics of the Ohio Section of the MAA. In 2006, the MAA also honored Dr. Swanson with a Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member. Dr. Chris Swanson has served as the advisor for the Ashland University Problem Solving Group (PSG) for the last two academic years.

**Dr. Darren Wick** has most recently taught Discrete Mathematics, History of Mathematics, Differential Equations, Linear Algebra, Introduction to Analysis and Elementary Statistics. He looks forward to teaching Calculus I (again) and the new Mathematical Proof course (Math 250) in the fall of 2016. He has served as webmaster for the Ohio Section of the Mathematical Association of America for the past 10 years. This past academic year (2015-16) he served as faculty advisor for both the MAA (Math club) and ACM (CS club), directed an honors thesis, and served as chair of the Faculty Senate Academic Technology Committee. His research interests include Ring Theory, Base Representation of Numbers and the History and Foundations of Mathematics.
Mrs. V. Sue Ralph  returned to Ashland University in August 2014. She is the administrative assistant to the Math and Computer Science Department.