

## Doing 'REEL' science focus of NSF initiative at YSU



Allen Hunter

Students call them "cookbook labs" – they learn to use lab equipment, complete an exercise and come up with a solution.

"Such labs efficiently help build skills in terms of working in a lab,

but from a higher learning sense, the students haven't done any actual science at the end of the day," said Allen Hunter, YSU chemistry professor.

Getting first- and second-year undergraduate chemistry students to do "actual

science" is the central goal of a new \$3 million National Science Foundation-funded program at YSU and 14 other Ohio public universities and colleges.

"Today, graduate schools and employers are less and less looking only at the technical and book skills that students bring to them but also want people who can think on their feet, problem-solve and show higher-order thinking skills," Hunter said.

"The traditional model of education, and the traditional model of how we operate chemistry labs, especially at the freshman and sophomore levels, doesn't do that as well as we think it should. This new program will help us transform the

labs so students not only learn the technical skills, but also learn to think and solve problems the ways that practicing scientists do."

The NSF grant will fund development of an Undergraduate Research Center by a consortium of Ohio universities – with YSU in a lead role – for an initiative called Research Experiences to Enhance Learning, or REEL.

Hunter, a co-principal investigator, said YSU has a strong national reputation for both research excellence in chemistry

and chemical education and for combining teaching and research, so it was important to Ohio State University and the other doctoral-granting partner institutions that YSU be involved in the initiative.

"It is worth emphasizing both that, in spite of its direct benefits to teaching, this is a grant from a research directorate at NSF to support undergraduate research and that YSU's participation as a lead partner comes directly out of our high regional and national profile for quality

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## First class of general studies students graduate



Richard Sweany

Richard Sweany's parents share a long-running joke with their son – he went to college for his bachelor's degree and never left.

But that's all about to change.

Sweany, an administrative assistant in YSU's Office of the Registrar, will receive a bachelor of general studies degree at YSU's fall commencement 2 p.m. Sunday, Dec. 18 in Beeghly Center.

He and three other students make up the first class of general studies degree graduates at YSU. The program was launched in May 2005.

Sweany of Austintown came to YSU in 1971 as a student and earned a full-time position as a secretary in the Williamson College of Business Administration in 1976.

Though he received an associate of arts degree, Sweany said he never earned his bachelor's degree, which was the goal he set out to achieve when he came to YSU from Magnolia, Ohio, a small town in Stark County.

"I had all these credit hours all over the place," said Sweany, 53, who began his college career as a voice/piano major, then switched to elementary education. "Up until this point, I didn't have the time to finish my degree. I have been working full time and raising two daughters as a single parent."

It turned out Sweany was a perfect candidate for the completer degree – all he needed was two classes to fulfill his goal.

The new BGS degree, administered by the YSU College of Arts and Sciences, requires 124 credit hours for completion. Jane Kestner, associate A&S dean, said the degree also requires a concentration area of at least 48 hours drawn from two

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Robert Ciotola, second from left, assists students in the Math Assistance Center in Cushwa Hall. The students, from the left, are junior Leanna Cluff, sophomore Anthony LeHew and junior Jonathan Whitacre.

## Math man: Ciotola leads Center more than 20 years

BY KELLY NOYES

Pythagoras, Archimedes and Newton are a few of the famous mathematicians whose pictures decorate the walls of the Mathematics Assistance Center in Cushwa Hall.

Robert Ciotola, director of the center for more than 20 years, may deserve a place on the wall himself.

"My picture will go right here," said Ciotola, 64, laughing and pointing to an empty space next to 19th century mathematician Nikolai Lobachevsky.

For 22 years, Ciotola has helped thousands of YSU students succeed in college math classes, finding them help when they felt most helpless.

"Math isn't easy, but it's not impos-

sible," said Ciotola of Hubbard.

The MAC has been an academic support service to YSU students for more than 25 years. Through a system of approximately 15 student tutors, the center helps students strengthen their fundamental math skills and provides resource materials for independent study.

In fall 2004 and spring 2005, nearly 900 students made about 4,000 visits to the center.

"We've had students coming in for the same problems since the MAC started because many of them are unprepared when they come to college," Ciotola said.

A native of Farrell, Pa., Ciotola's first love was music. He once was the drummer

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## YSU partakes in NEOUCOM's new doctor of pharmacy

YSU students can start taking classes in fall 2007 in the new doctor of pharmacy program at the Northeastern Ohio Universities College of Medicine.

"There's a lot of interest and a great need," said John Yemma, dean of YSU's Bitonte College of Health and Human Services. "It provides a pathway for our pre-pharmacy students to earn their doctorates and move into the pharmacy field."

The program, approved by the Ohio Board of Regents in November, will be the only doctor of pharmacy program in the eastern half of Ohio.

"This is truly a watershed moment in the history of NEOUCOM," said Lois Margaret Nora, NEOUCOM president and medical school dean. "I am delighted that the Ohio Board of Regents recognizes the quality and importance of this program, not only for our prospective students in eastern Ohio, but also for the betterment of patient care in this state and the positive economic impact the program will have on the regional economy."

By 2020, Ohio is expected to have a shortage of 14,000 pharmacists, recent

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### En garde!

Khoa Dao of Austintown, left, a senior biology and chemistry major, and Erin Millikin of Canfield, a junior political science major, fence in Beeghly Center. They are part of the YSU Fencing League, which consists of about 15 students. "We're always looking for recruits," said Katherine Durrell, the league's instructor. "No experience is necessary."

# Byline

## Celebrate the holidays with the right wine



Ed Goist

By Ed Goist  
Development Underwriter  
WYSU-FM, 88.5

(Ed Goist joined the staff of WYSU in February after two years as a fine wine specialist with Heidelberg Distributing Co. in Independence, Ohio. A recognized wine educator throughout Northeast Ohio, Ed also maintains a Web site on viticulture (growing grapes) at [www.vitfaq.vinic.com](http://www.vitfaq.vinic.com). YSUupdate asked Ed to share his wine expertise as the holiday season approaches.)

Few things go together as well as a holiday celebration and the right bottle of wine. For centuries, wine has been a key constituent of the holiday celebration rituals for countless cultures. This holiday season, you can honor this tradition by making wine a companion of your holiday festivities.

One of the reasons for wine's well-earned "holiday-friendly" reputation is its ability to accompany and enhance a wide range of foods. This flexibility makes matching wine with food much easier than most people believe. By following a few simple guidelines, one can easily match any entrée with a wide range of wines:

- Wine goes best with food when it is served at the correct temperature. White wine should be served at around 50° F, while red wine should be served at around 60° F.
- The wine in a wine-food match should be at least as full-bodied as the dish.

- Red wine, with its higher astringency, tends to go well with animal fats, oils, rich foods and creamy sauces. White wine, with its higher acidity, tends to go well with high protein, lean foods.

- Cold foods tend to go better with lighter, slightly chilled wines.

- Most importantly: Experiment, eat and drink what you enjoy. And most of all: Never let anyone tell you that your taste is wrong!

There are certain types of wine that tend to be very "food friendly," including Sauvignon Blanc, Riesling, Pinot Grigio, Beaujolais, Chianti, Pinot Noir and all sparkling wines.

A carefully selected bottle of wine is also the perfect gift. There are three key factors for success:

- Purchase wine from a knowledgeable, well-stocked wine merchant. The world of wine offers a mind-boggling number of choices across countless price ranges.

- Have a clearly defined price range in mind before shopping. Don't be embarrassed by shopping for wines at the lower price ranges. Today's retail wine market has excellent wines in all price categories.

- Have a well-defined gift-buying strategy. Ask yourself: Does this person like white or red, light-bodied or full-bodied, domestic or imported, etc. The more specific your buying strategy, the easier it will be for your merchant to guide you to that perfect gift bottle of wine.

I hope that this brief primer on wine and the holidays has provided you with both the interest – and the confidence – to include wine in your holiday celebrations. Nothing symbolizes the community, benevolence and fellowship of the holiday season quite like the right bottle of wine. ■

# Campus News Roundup

## Executive speaks at commencement

Stephen Bartolin Jr., a YSU graduate and the chair, president and chief executive of The Broadmoor, a hotel in Colorado Springs, Colo., will receive an honorary doctor of humane letters degree at YSU's fall commencement 2 p.m. Sunday, Dec. 18 in Beeghly Center.

A native of Hubbard, Bartolin was a junior on the YSU baseball squad when he was drafted to play minor league baseball in the Detroit Tigers organization. A shoulder injury cut short his baseball career, and he returned to YSU to receive a bachelor's degree in business in 1975.

Between 1975 and 1991, Bartolin held management positions at The Greenbrier in West Virginia and The Opryland Hotel in Nashville before being appointed president of the Broadmoor in 1991. He was named chief executive in 1999 and chairman in 2002.

He also holds the title of president and chief executive of the Manitou and Pikes Peak Railway Co., Cog

Land and Development Co. and The Broadmoor Golf Club, and he sits on the board of The Broadmoor's parent company, the Oklahoma Publishing Co.

Founded in 1918, The Broadmoor is a 700-room, 3,000-acre resort and the longest running recipient of the Mobil Five-Star and AAA Five-Diamond awards. The Broadmoor boasts three championship golf courses, an award-winning spa, 19 restaurants and lounges and more than 110,000 square feet of meeting space. Located at the foot of the Rocky Mountains, The Broadmoor is known as the "Grand Dame of the Rockies" and is considered to be one of the most picturesque places in the United States.

In 1997, Bartolin was recognized as North America's Resort Executive of the Year. He was inducted into the YSU Athletic Hall of Fame in 1987 and was honored in 1999 as "Penguin of the Year." In 2005, he was named Colorado Hotelier of the Year. ■

## Campus prepares for Old Man Winter

With winter here, YSU students and employees should keep in mind that WYSU-FM 88.5 radio is the only official source for information about the cancellation of classes and university operations.

Employees and students should tune to WYSU on the hour and half-hour for university information. All area

news media also will be contacted regarding possible cancellation of classes.

Information also will be posted on YSU's Web site at [www.yсу.edu](http://www.yсу.edu) and on the university's special announcement telephone line at 330-941-2222. ■

### Under pressure...

Nursing student Jessica Gifford of Canfield, right, checks the blood pressure of Lyndsay Bell of Louisville, Ohio, a sophomore early childhood education major. The checks were part of the YSU Health Fair Nov. 8 in the lobby of the Andrews Student Recreation and Wellness Center and sponsored by the Junior YSU Nursing Community Class.



## Gifts sought for 'Each Child' project

YSU's Office of Equal Opportunity and Diversity is once again collecting gifts for the Each Child Remembered Program to help brighten the holidays for children who have incarcerated parents.

Last year, YSU collected gifts for more than 60 children, and this year's goal is 100 children, said Christine Bidwell, secretary in the Equal Opportunity office. This is the third year that YSU has participated in the collection.

Each Child Remembered is an Angel Tree project coordinated by the Center for Community Empowerment.

Participants can get the name of a child in the Equal Opportunity office on the second floor of Tod Hall, buy gifts for that child and deliver the gifts back to the office. The gifts will then be distributed at a Christmas party for the children. Monetary contributions will also be accepted.

For more information, contact Bidwell at 330-941-3370. ■

## YSU, JCC, BTC collaborate on PPT

YSU has developed partnerships with Jefferson Community College and Belmont Technical College to offer a new two-year degree that will lead graduates to in-demand careers as power plant technicians.

"If you want long-term job security, then you want this degree," said Frank Ferrel, faculty administrator for industrial trades programs at Belmont Technical College in St. Clairsville, Ohio. "These are positions that will never be out-sourced because the utilities are not going anywhere. They're here to stay."

The associate degree of technical studies in power

plant technology is a collaboration between YSU and the two other institutions and prepares graduates to perform basic operating functions required in electric utility power plants and other related industries.

The degree will carry both names on the diploma and students will take classes at both YSU and either BTC or JCC.

YSU entered into a partnership with FirstEnergy Corp. two years ago to start the program in response to a growing need for thousands of trained power plant operators. YSU has since expanded the partnership to also include Reliant Energy and American Electric Power. ■

## Youngstown STATE UNIVERSITY

The YSUupdate is published every other week during the academic year and once a month in the summer by the Office of Marketing and Communications.

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# Faculty/Staff

## Grants

**Javed Alam**, professor, Civil/Environmental and Chemical Engineering, is serving as co-principal investigator and subcontractor on a \$74,999 National Science Foundation grant, awarded to Joseph Rencis, chair and professor of the Department of Mechanical Engineering at the University of Arkansas. The project is titled "CCLI-EMD: Development of a Finite Element Method Learning Environment for Undergraduates." YSU received \$22,499 of this grant.

**Paul R. Carr**, assistant professor, Educational Administration, Research and Foundations, received a \$500 University Research Council Grant for "African-Born Parents of School-Aged (K-12) Children: Educational Perspectives, Expectations and Experiences."

**Peter Norris**, professor, Chemistry, received \$50,000 from the American Chemical Society for the project, "Stereospecific Intramolecular Carbenoid Insertions on Furanose Platforms as a Route to Branched-Chain Sugars, C-Glycosides and Fused Heterocycles."

**Eric See**, assistant professor, Criminal Justice, received a \$450 University Research Council Grant for "Mentally Ill and Mentally Retarded Individuals: The State of Criminal Justice Education."

## Presentations

**Chris Bache**, professor, Philosophy and Religious Studies, presented "Meditation – The Wisdom of Doing Nothing Consciously" before the Ohio Cultural Alliance in Youngstown in September.

**Arlene Floyd**, director, Associate Degree & Tech Prep Programs, and Sherri Lovelace-Cameron, associate professor, Chemistry, presented "No Child Left Behind through Self-Regulatory Learning" at the National Association for Multicultural Education 15th Annual International Conference in Atlanta.

**Mustansir Mir**, University Professor of Islamic Studies, made several presentations in October and November at the First Presbyterian Church of Sharon in Sharon, Pa. The presentations were entitled: "Fundamentals of Islam," "Muhammad and the Qur'an," "Muslim Civilization" and "Jesus in Islam."

## Professional Activities

**Gunapala Edirisooriya**, professor, Educational Administration, Research, and Foundations, has been appointed external reviewer by three leading journals in education: *History of Education*, *Educational Policy Analysis Archives* and the *Journal of Teacher Education*

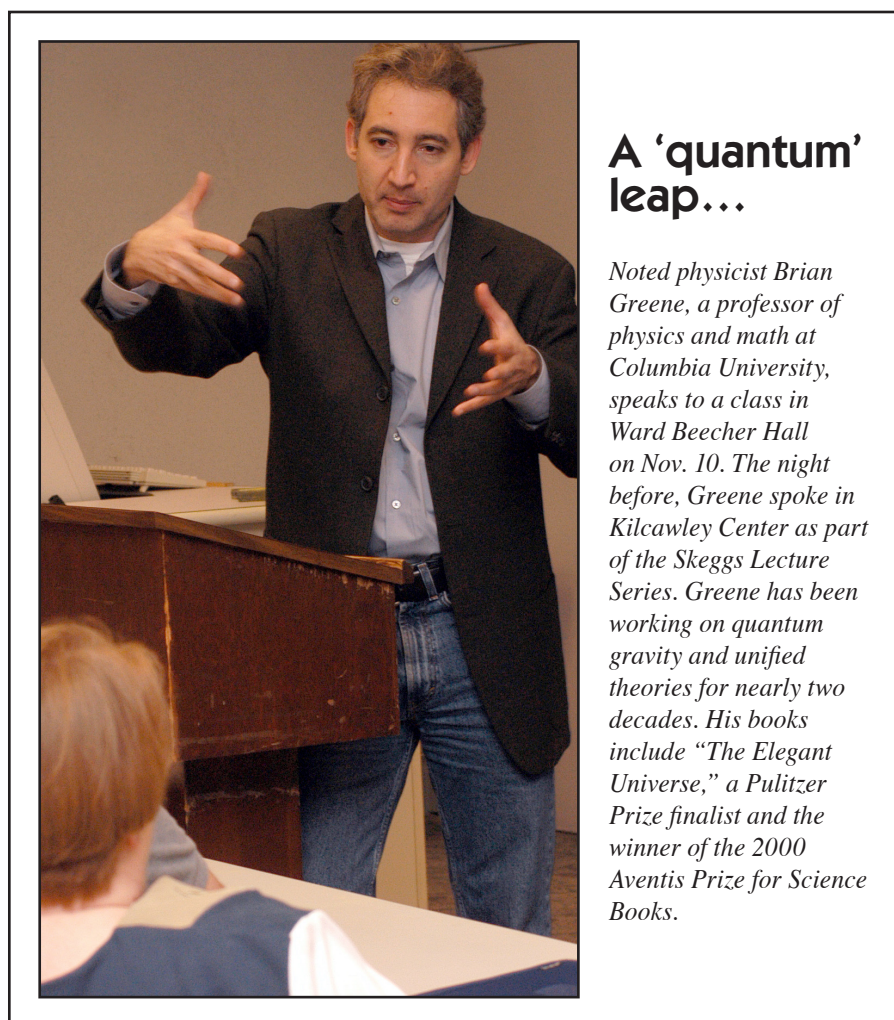
## Publications

**Rangamohan Eunni**, assistant professor, Management, co-authored the article "Adapt or Adapt: Lessons for Strategy from the U.S. Telecoms Industry" in the Autumn 2005 *Journal of General Management*.

**Stephen Ray Flora**, professor, Psychology, and Holly Elizabeth Long published the article "An Effective Psychophysiology Laboratory on Cardiovascular Reactivity to Cold Pressor Pain" in *Teaching of Psychology*. Long is a YSU psychology honors graduate and a Ph.D. student in developmental psychology at Case Western Reserve University.

**Zbigniew Piotrowski**, professor, Mathematics and Statistics, co-authored "Two Variations of Choquet's game, Kyungpook," in the *Journal of Mathematics*.

**Tom Shipka**, professor and chair, Philosophy and Religious Studies, published the article "Everything Happens for a Reason" in the December 2005/January 2006 issue of *Free Inquiry*. His review of Linda Chavez and Daniel Gray's "Betrayal – How Union Bosses Shake Down Their Members and Corrupt American Politics" appeared in the Fall 2005 issue of *Thought and Action*. ■



## A 'quantum' leap...

*Noted physicist Brian Greene, a professor of physics and math at Columbia University, speaks to a class in Ward Beecher Hall on Nov. 10. The night before, Greene spoke in Kilcawley Center as part of the Skeggs Lecture Series. Greene has been working on quantum gravity and unified theories for nearly two decades. His books include "The Elegant Universe," a Pulitzer Prize finalist and the winner of the 2000 Aventis Prize for Science Books.*

# Faculty asked to do more and more, 'Boot Camp' teaching expert says



Edward Nuhfer

Edward Nuhfer, director of the Center for Teaching and Learning and professor of geology at Idaho State University, visited YSU Nov. 16 to present a workshop on knowledge surveys.

Nuhfer's "Boot Camp for Profs" is a nationally recognized teaching program that has attracted faculty from more than 100 colleges and universities nationwide.

YSUupdate editor Ron Cole caught up with Nuhfer during his YSU visit:

**YSUupdate:** What makes a good college teacher?

**Nuhfer:** I think probably a person who is constantly learning the needs of their students and ways to meet them. There isn't a set formula that works in every classroom. There also are certainly differences between institutions. Every institution has a different culture and different needs. I think probably the best teacher is the one who loves to come to campus in the morning, they love what they do and they love it largely because they are helping their students and are excited about learning.

**YSUupdate:** In terms of teaching, what would you say are the greatest challenges facing faculty today?

**Nuhfer:** Certainly time is one. Faculty seems to be asked to do more and more. Teaching loads are heavier, classes are larger and we're doing a different type of education than we were 30 years ago. We're really involved in teaching people to think at high levels and to actually be able to perform and do certain things, as opposed to just learning a body of knowledge. And this is a harder challenge.

**YSUupdate:** In addition to teaching, faculty members are expected to accom-

plish a certain amount of research and service. In fact, many faculty who focus on research are rewarded in many ways more than those who may be great teachers. As a faculty member, how do you balance that, or do you balance it?

**Nuhfer:** I don't think you can balance it very well in today's university. To teach well, takes time. To do research and have a breakthrough and write a grant takes time. Grant writing is the biggest time sink we have because very often you can spend many, many hours and it comes to nothing. It's totally wasted. Where at least when you're preparing for a class, even if you've made mistakes in doing that, at least these are learned mistakes that are useful the next time you do it.

I think one of the things that higher education doesn't do well is use the time of its employees. This is very different from private industry. Time is a commodity just like money. If you have people's time being shuttled into unproductive enterprises – maybe a huge amount of committees that don't really solve anything – it's not really a good use of time. There are huge amounts of talent on a campus, which is most frustrated when it isn't used well.

**YSUupdate:** What can universities do to better manage time and to better balance teaching vs. research?

**Nuhfer:** I think there is this idea that faculty has to do everything at once. Some universities have gotten a little bit smarter about it and decided, well, you can probably do good research if you're totally dedicated to research, and you can probably do good teaching if you're totally dedicated to that. But, if there's an 'Oh, you can do that too' kind of attitude, then probably neither one of them will get done well... You can't try to do all things to all people in all places, because we know that's just a way to assure that everything that is produced is fairly mediocre. ■



## Head of the class...

*Recipients of Dean's Awards at YSU's eighth annual Research Recognition Luncheon pose for a photo in Kilcawley Center. From the left are Tom Oder, assistant professor of physics and astronomy, who received the award for the "Most Prolific New Investigator in Applying for External Funding;" Greg Sturuss, chair of the Department of Physics and Astronomy, who accepted the award for the department showing "Superior Success in Obtaining External Funding;" and Rangamohan Eunni and Rammohan Kasuganti of the management department, who received the award for faculty members demonstrating "Superior Success in Obtaining External Funding."*

## Prof's book chronicles Mill Creek Park

When co-authors Rick Shale and Carol Potter finished research for grants for historical markers in Mill Creek Park, they said to each other, "This should be a book."

Arcadia Publishing agreed.

"We found Mill Creek's history to be fascinating and felt it should be shared with the public," said Shale, a YSU professor of English.

The result was "Historic Mill Creek Park," a 128-page book, which landed on the shelves in October, and chronicles the park's history through 200 captioned photos.

"The book has already proven to be a great resource on the park," said Potter, park director of development and marketing. "I have used it many times to find answers to questions that people have asked me about Mill Creek."

It took two years of research and about six months of writing and editing to complete the project, which covers the park's history from 1891, when it was founded by Volney Rogers to 1989, when it became Mill Creek MetroParks.

"Everybody around here has enjoyed

Mill Creek Park's amenities, but not many know who built and designed the cabins, bridges, pavilions and dams," said Shale, who is also a member of the Board of MetroParks Commissioners and long-time volunteer. "This book also provides



The history of the suspension bridge is part of YSU English Professor Rick Shale's new book on Mill Creek Park.

information on the community's cultural history, showing how Youngstowners spent their leisure time."

## "REEL" science

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research at a master's comprehensive institution," Hunter said.

Other partner universities include Akron, Cincinnati, Dayton, Toledo, Bowling Green, Central, Kent, Cleveland, Wright, Capital, Miami, Ohio and Columbus State Community College.

In addition to introducing research-driven labs in general chemistry classes, the initiative aims to generate new knowledge in the chemical sciences through faculty-student collaborative research, often on a statewide scale, and to increase graduation rates in STEM fields – science, technology, engineering and mathematics.

Ohio ranks 36th in the nation in the percentage of undergraduate students earning degrees in STEM fields. According to the REEL consortium, only about 20 percent of the nearly 40,000 students enrolled in STEM courses at the 15 partner institutions in 2001 will actually earn a degree in these fields.

Hunter said that involving students in "discovery-oriented" lab projects early in

their college careers could "help turn them on to the sciences, and then we'll keep them."

"This is a way to hook them," he said.

He said YSU and the other universities will collaborate to develop chemistry classes that give students more control over their lab work, including actually choosing and defining their lab experiments and projects.

Projects at YSU will initially focus on ways to remove toxic elements from the next generation of paint pigments. "It will be like doing conventional research," he said. "It will result in publishable research at both the state and national levels."

The initiative calls for the new chemistry courses to be gradually worked into chemistry curricula statewide, with Ohio State introducing the first trial lab section in January. The concept will be first introduced at YSU in fall semester 2006, Hunter said. By 2011, it is planned that about 14,000 students statewide will be exposed to the new approach each year. ■

For example, Shale pointed out that the golf course was designed in 1928 by Donald Ross, who is known across the land as the father of American golf course architecture. Ross also designed Pinehurst #2 in North Carolina, among other courses.

"The book showcases what most people feel is a treasure of the Mahoning Valley," said Shale, who also wrote "Idora Park: The Last Ride of the Summer" about the history of the Youngstown amusement park.

"I love local history, and for me, the book on Mill Creek was a natural progression from the Idora book. Idora Park, which opened in 1899, was built adjacent to Mill Creek, so people could take the trolley to one location and have the choice of the natural scenic beauty of Mill Creek or the artificial amusements of Idora."

Shale and Potter got most of the photos from the park's own archival collection. The rest came from the Vindicator, the Mahoning Valley Historical and from individuals. They sifted through several thousand photos to pick the best 200, many of which have never before been published.

"If the first book continues to do well, we hope to write a sequel, focusing on the park from 1990 to the present," said Shale.

The authors are donating the book's royalties to the Mill Creek Park Foundation Land Conservancy Fund, which helps the park acquire more land. The park encompasses 2,600 acres, 20 miles of drives and 15 miles of foot trails in Mahoning County. ■

## NEOUCOM

(Continued from page 1)

studies show. Currently, the median annual salary for pharmacists is \$89,723.

Since the pharmacy program was first proposed by NEOUCOM in June 2005, 474 prospective students have completed an online interest form.

NEOUCOM will partner with YSU, University of Akron, Kent State University and Cleveland State University to offer the new doctor of pharmacy program. Preferential admissions agreements will allow many students to complete about two years of pre-pharmacy studies at one of the four universities and then apply to the four-year NEOUCOM program. A direct-entry route to admission also is anticipated.

Nora also announced that David D. Allen will join NEOUCOM as founding dean of the pharmacy program in January 2006.

Allen currently serves as associate dean for curricular affairs and associate professor of pharmaceutical sciences at Texas Tech University Health Sciences Center at Amarillo.

Although applications are not yet being taken for the pharmacy program, interested students can fill out an online form to receive additional information. The form can be found on the college's Web site, [www.neoucom.edu](http://www.neoucom.edu). ■

## General studies

(Continued from page 1)

or more disciplines.

Currently, there are between 40 and 50 students in the program.

Sweany, who worked for 20 years in the WCBA before transferring to his current position, said his co-workers in the registrar's office kept encouraging him to complete his degree, and that is what motivated him to investigate the new BGS.

"I am excited to get my degree; my parents are excited and so are my kids," said Sweany, whose daughter will be attending YSU next fall semester.

Sweany said he strongly recommends the BGS program.

"So often, parents will tell me that they are former YSU students and they are close to getting their degrees," he said. "Every chance I get, I tell people about the general studies program. I say, 'If you're that close, finish it. You are never too old to go back,'" he said.

To Kestner, Sweany's situation was ideal for the BGS. "The degree is intended for former students who have been out of college for varying amounts of time and who have a lot of hours, but never finished their bachelor's degree," she said.

For more information about the program, contact Kestner or Molly Burdette, general studies coordinator, at 330-941-2311. ■

## Math center

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for The Newports, a local jazz cover band. But he was always around math. "My father was a self-taught accountant who did accounting for small businesses in the area, and my brother, Frank, was an associate professor of math here at YSU for 20 years," he said.

After graduating from Sharon High School, Ciotola came to YSU and earned a bachelor's degree in mathematics in 1963. He spent the next 19 years teaching math at Brookfield and Sharon high schools. In 1982, he returned to YSU to coordinate the MAC.

Has the center been a success?

"I would consider it successful if we didn't need this place anymore," Ciotola said. "But, really, we've been very successful. Even if it's only one person out of 100, we've helped that one person."

Ciotola said the center, part of the Department of Mathematics and Statistics, wants to help students to learn how to work on their own and succeed in their math classes.

"There are some students who go to the MAC thinking that the tutors will do all of the work for them, but that isn't the case," he said. "We want students to be self-sufficient. We want to provide students with the opportunity to develop skills and confidence to do math successfully."

For more information on the center, visit [http://www.as.yzu.edu/~math/student%20services\\_mac.htm](http://www.as.yzu.edu/~math/student%20services_mac.htm). ■