

# NDWorks

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News for Notre Dame faculty and staff and their families

## ‘Scent marketing’ stinks, say researchers

### A form of subliminal advertising?

BY ED COHEN, MENDOZA COLLEGE OF BUSINESS

Scent sells. Used-car dealers know it when they spray their vehicle interiors with “new car smell” to make the cars seem newer.

Real estate agents know it when they suggest homeowners bake cookies before a showing to make their houses seem more homey.

Now retailers are attempting to use scents in more subtle ways. It’s all in an effort to influence shoppers to make purchases without the consumer being conscious of it.

A member of the Mendoza marketing faculty thinks that stinks.

In the article “The Use of Scents to Influence Consumers: The Sense of Using Scents to Make Cents,” Associate Professional Specialist **Kevin D. Bradford** argues that such manipulation is unethical because, unlike other forms of advertising that we can tune out, “smell is a sense we cannot suspend.”

As Bradford explains, our sense of smell is primal and deeply rooted. When we smell something, odor receptors in the brain produce an immediate instinctive reaction. We literally act without thinking.

To some this may sound like a retailer’s dream. And, in fact, an entire scent-marketing industry has developed that promises to boost sales. In one scent-industry study referenced in the book “Brand Sense: Build Powerful Brands through Touch, Taste, Smell, Sight, and Sound,” 84 percent of people were found to be more likely to buy shoes or liked them better when in a pleasantly scented room. In another study, a sweet citrus odor added to the air nearly doubled average total purchases in a retail setting.

Bradford acknowledges that many people would say that there’s nothing wrong with such atmospheric engineering. No law prohibits scent marketing, defenders point out, and consumers know when they step into a store that management will be

doing all it can to get them to buy.

Bradford and co-author Debra M. Desrochers of London’s Middlesex University disagree. In their article published in the November 2009 issue of the *Journal of Business Ethics*, they compare potential scent manipulation to the purported effect of subliminal advertising.

The classic attempt at subliminal advertising involved a movie theater that began splicing a few frames of an image of buttered popcorn into a film. Moviegoers weren’t conscious of seeing the image, but a study reported that it prompted some to head to the snack bar. As the authors note, such advertising has been banned since the 1970s. Also, the reported sales effect of inserting images into movies has since been disproved.

The researchers say there’s nothing unethical about people finding themselves craving bread when they visit a bakery and smell the bread baking. That’s an authentic scent resulting from the bakery’s operations. Where manipulation comes in, they say, is when retailers import foreign scents into an environment with the intention of influencing buyers without their knowledge.

The authors mention a 2005 study published in the *Journal of Business Research*, in which the air in a store was enhanced with artificial scents known to appeal to one gender or the other (rose maroc for men, vanilla for women). In its scented state, the store was evaluated more favorably by shoppers. They spent about 50 percent more time in the store, bought almost twice as many items and spent more than twice as much money.

The authors argue that retailers should not try to influence consumers’ behavior without shoppers having the opportunity to “acknowledge or defend against the persuasion attempt.” They don’t have that opportunity with scents because scents cause us to react without thinking and because relatively few consumers are even aware of scents being used this way, the researchers say.

Scented air can do more than trigger buying impulses, however. The authors cite studies showing that certain scents seem to aid in memory and can even improve job performance. In one study referenced by *The New York Times* in 1989, keypunch operators at a Japanese firm were found to make 50 percent fewer errors when exposed to a lemon scent and 80 percent fewer with lavender.

But here again, the marketing researchers raise concern over the possibility that, though the intentions may be good, this is still manipulation of a human being. “In the long run, initiatives that began as efficiency improvements,” they warn, “may evolve into abuse of the employees.”

*Reprinted from Notre Dame Business Magazine*



## Emotional memories enhanced by REM sleep

### Sleeping brain preserves memories of what’s most important

BY SUSAN GUIBERT, PUBLIC RELATIONS

Witnessing a car wreck or encountering a poisonous snake are scenes that become etched in our memories.

But how do we process and store these emotional scenes so that they’re preserved more efficiently than other, more neutral memories?

In a new study published recently in *Frontiers in Integrative Neuroscience*, Notre Dame researchers **Jessica Payne** and **Alexis Chambers** found that people who experienced rapid eye movement (REM) sleep soon after being presented with an emotionally charged negative

scene—a wrecked car on a street, for example—had superior memory for the emotional object compared to subjects whose sleep was delayed for at least 16 hours. This increased memory for the emotional object corresponded with a diminished memory for the neutral background of the scene, such as the street on which the wrecked car was parked.

These results suggest that the sleeping brain preserves in long-term memory only those scenes that are emotionally salient and aid in adaptation.

“Our results suggest that REM sleep, which has long been thought to play a role in emotional processing and emotional memory, helps us selectively preserve in memory only what is most important and perhaps beneficial to survival,” says Payne, a

Notre Dame assistant professor of psychology who specializes in sleep’s impact on memory, creativity and the ability to process new ideas.

We know that emotional events occupy a privileged position in our memories—they shape our personalities, represent defeats and achievements, mark milestones in our lives and often drive anxiety and mood disorders.

This study shows that the sleeping brain doesn’t just consolidate all recently encountered information. It appears to select for consolidation only the most emotional part of the experience, and

the evidence suggests that REM sleep critically modulates memory for highly arousing emotional information.

MATT CASHORE



Payne

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# Concerned about data privacy on the Internet? You should be

## January 28 is Data Privacy Day

BY LENETTE VOTAVA, OIT

You might be surprised (and alarmed) to find out how much of your personal information is publicly available online.

You can find out by visiting a site such as [spokeo.com](http://spokeo.com) and typing in your name and city. Publicly available information such as your general age and the street you live on (with a map).

But by paying a small fee (\$3.95 to \$4.95 per month), anyone can access information including your phone number, email address, family members' names, your occupation and education, the value of your home, current and previous

addresses, and photos, videos and social network profiles that are publicly available.

Worried yet? You CAN take steps to preserve your privacy online.

Start by Googling yourself and searching your name on other available search engines. Check periodically to keep tabs on what information is available about you and your family.

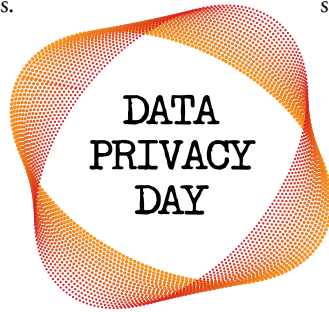
Sites such as [pipl.com](http://pipl.com) and [spokeo.com](http://spokeo.com) specialize in harvesting public records information. LinkedIn profiles, public Facebook information, and even old MySpace accounts. This data is matched up

and linked to an individual.

If you have a common name, personal information from others with the same name may be included under your name. For example, John Smith III can be easily confused with John Smith II (his father), because they likely lived in the same house for years.

Additionally, data collectors often miss senior and junior designations.

If a family member or unrelated person who shares your name has bad credit, questionable history or other negative information available on the Internet, it is possible these undesirable records may be intermingled with your



personal information.

What can you do to protect your name and personal information?

Type in your name in different search engines and find out what personal information is included under your name on the Internet.

To correct errors in the information listed with your name, you can file a correction request with the listing organization or the organization that maintains the original data (e.g., the Department of Motor Vehicles).

If you prefer not to have your information on these sites, you can request that your information be removed—although it can be a challenge. If the listing organization is unwilling to remove your information, you can contact one of several companies that specialize in cleaning up your online reputation

and identity.

To remove your profile information from Spokeo, visit [spokeo.com](http://spokeo.com), scroll to the bottom of the front page and click "Privacy." Scroll to the bottom of the page and follow the instructions.

Remember, your online identity can be viewed by anyone—including your employer, coworkers, students, family and friends. Be aware of where information exists and periodically review the content to ensure accuracy.

In addition, the sponsor of Data Privacy Day, [StaySafeOnline.org](http://StaySafeOnline.org), has joined with [Reputation.com](http://Reputation.com) to offer victims and survivors of domestic violence the opportunity to safeguard privacy online and remove personal data from the Internet.

For additional information, go to [staysafeonline.org/data-privacy-day](http://staysafeonline.org/data-privacy-day).

# Holy Cross Harvest takes place Jan. 28 through Feb. 15

## Matching grant will double the value of some donations

BY CAROL C. BRADLEY, NDWORKS

Last year's **Holy Cross Harvest**, a charitable project of Notre Dame, Saint Mary's and Holy Cross colleges, raised \$15,383 and more than 2,100 pounds of food for local food pantries. This year the focus is on raising money, but food will still be collected at a few locations around campus.

**Anne Kolaczyk**, senior technical training professional with OIT's academic and administrative services, spearheads the drive. Focusing on collecting money rather than food makes a lot of sense, she says. "Each dollar donated can buy \$8 to \$10 worth of food."

Why is the Holy Cross Harvest held in January and February?

Thanksgiving and Christmas are popular times for donations to food pantries, but after Christmas, donations fall off. Hunger is a year-round issue, notes Kolaczyk.

Says Marijo Martinec, the Food Bank of Northern Indiana's director of community impact, "More than 18 percent of the people in Northern Indiana are food insecure—they

do not have food or access to nutritious food." Forty-four percent of those receiving food assistance are younger than 17.

This year, donations will be split between the Food Bank of Northern Indiana's **Fun Packs Program** and **People Gotta Eat**.

The Food Bank's Fun Packs Program sends food home with needy children each week. Formerly known as the Backpack Program, the emergency food assistance program serves grade-school-age children (K-6) at schools identified as having a high number of children eligible for free lunch programs.

The program helps improve the physical, mental and overall school performance of chronically hungry children by providing immediate, confidential and direct assistance.

Every Friday through the school year, food-insecure children receive nutritious, kid-friendly food for times—on weekends and holidays—when they are not in school. The cost of food and delivery is approximately \$3.50 per week per child, but the



program is free for eligible children and their families. Your donation of \$140 can sponsor a child for one academic year.

People Gotta Eat (PGE) is a group of 17 local food pantries that have combined under the United Way of St. Joseph County to pool resources for awareness and fundraising.

This year, funds donated to PGE will be doubled in value through a United Way matching grant. All donations of nonperishable food will go directly to PGE. Donation bins will be available in several locations around campus.

If you'd like to help by donating online, visit [holycrossharvest.nd.edu](http://holycrossharvest.nd.edu) (you'll need to choose between the two agencies) or you can write a check and give it to your department representative. For more information or to schedule a donation pickup, contact Anne Kolaczyk, 631-8679 or [harvest@nd.edu](mailto:harvest@nd.edu).

## NEWS BRIEFS

### COLLEGE OF ARTS AND LETTERS ANNOUNCES NEW PH.D. PROGRAMS

The College of Arts and Letters has announced the launch of two new doctoral programs, a Ph.D. in the Department of Anthropology and a Doctor of Musical Arts (DMA) program in the Department of Music.

The new anthropology program will focus its curriculum and training on integrative anthropology, says **Susan Blum**, professor and chair of the department.

"The strengths of Notre Dame's anthropology department are in its commitment to multiple approaches to understanding humanity and its diversity, willingness to face big questions, individual excellence in teaching and scholarship, exceptional mentoring of students and engagement beyond academia," she says.

When the program launches in fall 2014, it will be the only doctorate in anthropology offered by a Catholic university in the United States.

Of the new DMA program, **John T. McGreevy, I.A.**

O'Shaughnessy Dean of the College of Arts and Letters, notes, "Given Notre Dame's educational mission, its Catholic foundation and our recent investments in faculty who are recognized leaders in sacred music, the University is uniquely poised to develop young musicians to serve the Church and the world."

The doctoral program, he notes, will be a core component of the University's larger Sacred Music at Notre Dame initiative and has been generously supported by a Lilly Endowment grant of nearly \$2 million.

The program will offer majors in organ and choral conducting, beginning in fall 2013.

### NOTRE DAME MBA RANKS NO. 1 FOR ETHICS IN BLOOMBERG BUSINESSWEEK SURVEY

The University's **MBA program** ranked No. 1 for ethics in the Bloomberg Businessweek MBA Specialty Ranking announced Monday, Dec. 17. The ethics ranking was released as part of the publication's 2012 Best B-Schools ranking, where the Notre Dame MBA program landed at No. 20, improving four slots compared to its 2010 result.



## INTERNAL COMMUNICATIONS

### Tools to Keep You Informed

#### NDWorks



**NDWorks**, the faculty/staff newspaper, is published by University Communications. The deadline for copy is 10 business days before the following 2012-2013 publication dates: July 19, Aug. 16, Sept. 13, Oct. 11, Nov. 8, Dec.

6, Jan. 10, Feb. 14, March 21, April 18, May 23. Download a PDF of the current issue or obtain PDFs of back issues by clicking the "NDWorks Archive" tab on [today.nd.edu](http://today.nd.edu).

#### Today@ND



**Today@ND** ([today.nd.edu](http://today.nd.edu)), the University's internal communications website for faculty and staff, offers news and features, University-wide announcements and other information of interest to faculty and staff.

#### The Week@ND




**The Week@ND**, a summary of the week's events and opportunities, arrives by email every Monday morning. The latest issue is also available on **Today@ND**, [today.nd.edu](http://today.nd.edu). Submit events to [theweek@nd.edu](mailto:theweek@nd.edu) by noon Thursday of the week before the event.

#### Calendar



The University Calendar, [calendar.nd.edu](http://calendar.nd.edu), provides a list of campus events by day, week or month, as well as by category (arts and entertainment, athletics). Categories or individual events may be downloaded directly into your Outlook or Google calendar. We welcome your comments and suggestions!

Contact NDWorks/Today@ND Managing Editor **Carol C. Bradley**, 631-0445 or [bradley.7@nd.edu](mailto:bradley.7@nd.edu), or submit a comment or story idea via the "Contact Us" tab on **Today@ND**.

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# Realignment of Douglas Road approved, under way

**Goal for completion is mid-August 2013**

BY CAROL C. BRADLEY, NDWORKS

After nearly a year of research, including traffic counts and engineering studies, 100 meetings with key stakeholders and unanimous approval from the St. Joseph County Council and St. Joseph County Commissioners, construction has begun on a project to re-route **Douglas Road** north of its current location between Juniper and State Road 933.

**Why was this project a priority?**

There were a number of goals the University had in mind, says **Tim Sexton**, associate vice president for state and local public affairs. "The project will improve safety and consolidate 120 acres of University-owned property for future development."

**Create an attractive and safe northwest entrance to campus**

"The east side of SR 933 at the Toll Road exit, property owned by the University, is not attractive," Sexton says.

The exit also is something of a traffic hazard. The exit is a short distance north of the current Douglas Road, and vehicles exiting the Toll Road to the south or entering to the west must cross several lanes of traffic, often heavy, within a short distance, at Douglas.

In the new plan, a four-lane Douglas Road, with a 40 mph speed limit, will travel through White Field to connect to 933 at the Toll Road entrance. Two roundabouts

will be added, one near the current Douglas-Juniper intersection and another further northwest.

The existing traffic light at the north entrance to Saint Mary's College (Bro. Andre Drive and 933) will be retained, Sexton says. "The traffic warrants it."

**Address safety issues**

There's a considerable amount of campus pedestrian and vehicle traffic crossing Douglas at Juniper Road from St. Michael's Laundry, Mason Services Center, Landscape Services and the Food Services Support Facility. "This will improve safety for those employees," says Sexton, "by greatly reducing the volume of traffic traveling west of this intersection."

Safety concerns about the new four-lane road raised by residents of University Village and Roseland's Indian Village have been addressed by adding to the plan two HAWK (high-intensity activated crosswalk beacon) systems, one at the entrance to University Village and another near the planned roundabout near the existing Juniper-Douglas Road intersection.

HAWK is a traffic signal that stops all road traffic to allow pedestrians to cross safely. The system is activated only when a pedestrian or bicyclist pushes a button to activate it or their presence is triggered by sensors and includes countdown "walk" and "don't walk" signals.

White Field will still be used for game day parking, but the project should improve traffic flow and make it much easier to get on and off campus.



MATT CASHORE

*Pictured, the intersection of the current Douglas Road at SR 933, facing east toward campus. This traffic light at the entrance to Saint Mary's (Bro. Andre Drive) will remain in place.*

**Develop a connected system of biking and walking trails**

The road relocation project, Sexton says, affords the opportunity to connect to existing biking/walking paths, creating a 10-foot-wide trail around the northern perimeter of the University. The path will also connect to additional campus exercise trails and the Indiana-Michigan River Valley Trail.

"The pedestrian exercise trails are going to be a fantastic benefit to Notre Dame and the community," Sexton says. Best of all, these bike trails are separated from the vehicular travel lanes of the road.

North of campus, St. Joseph County will add a six-foot-wide asphalt path on both sides of Juniper Road for bike and pedestrian safety; south of the viaduct, the University will extend bike lanes north to Pendle Road.

**Improve Douglas Road's traffic flow**

St. Joseph County has a long-term plan to develop Douglas—the only through street to the University Park Mall area between Edison Road to the South and Cleveland Road to the north—into a major east-west corridor. "This project will make the road four lanes in this section, accomplishing a major section in the county's long-term transportation plan," says Sexton.

The University has asked the county to widen Douglas to four lanes between Ironwood and Twyckenham. Those discussions are still under way.

An additional advantage is that when the project is completed, 120 acres of land contiguous to campus will be available for future

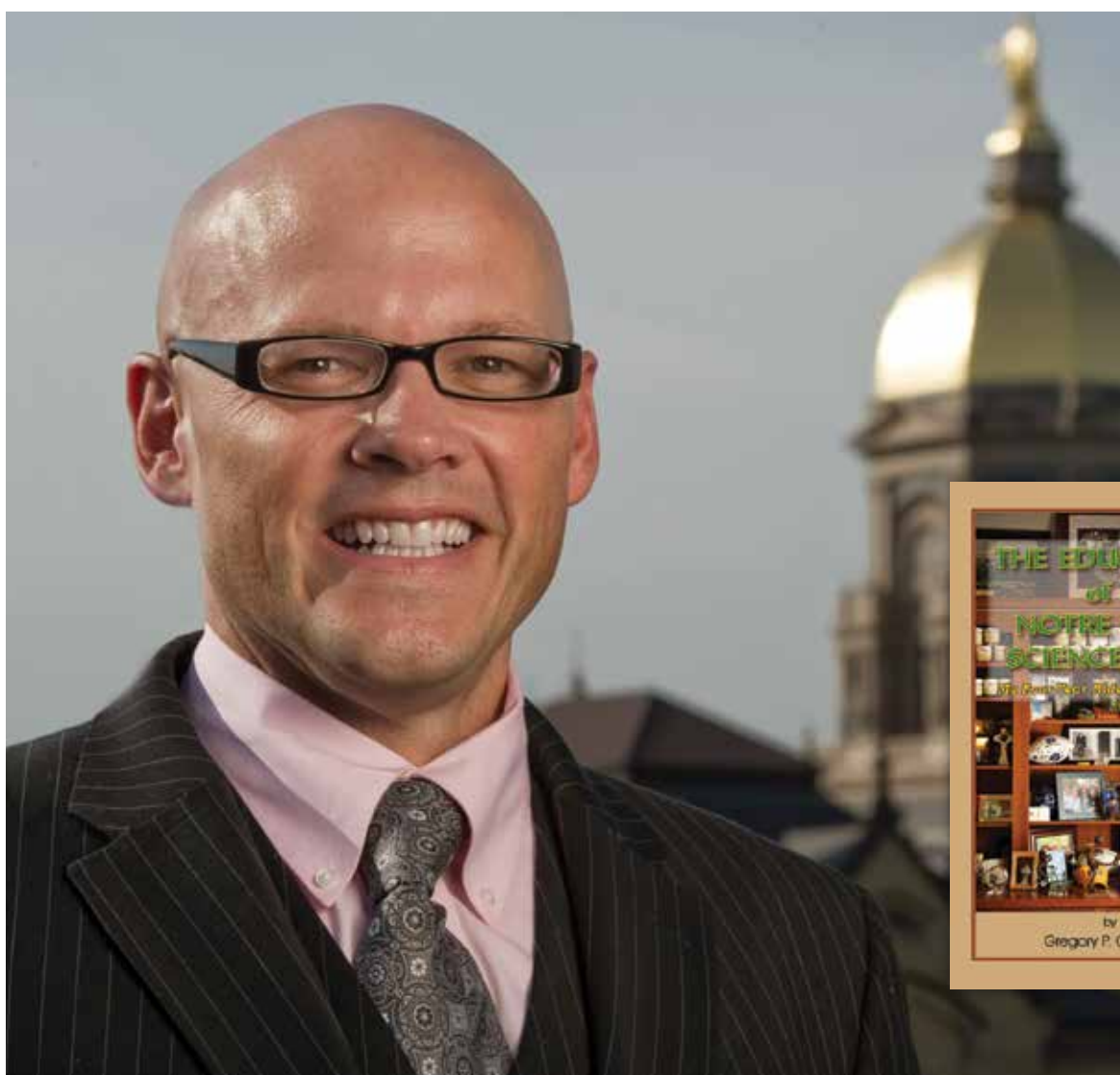
development, "without a public road through the middle," adds Sexton.

**What's the timeline?**

Work such as soil testing is already being done. Construction will begin early in 2013, and the new road is anticipated to be complete by mid to late August, in time for the first football game.

As far as the impact on campus traffic in the meantime, Sexton adds that Juniper Road will be closed only for a few days, in late summer. The existing Douglas Road will be in use until the new road is completed, after which the current Douglas Road will be closed to complete construction.

# The Education of a Science Dean



Crawford

**Proceeds of book benefit Parseghian Medical Research Foundation**

BY GENE STOWE, FOR NDWORKS

**Gregory Crawford**, dean of the College of Science, has written a personal account of his experiences since he accepted the position in 2008.

"The Education of a Notre Dame Science Dean: My Four-Year Ride with the Irish" has been published by Corby Books (corbypublishing.com, \$19.95). All proceeds support the Ara Parseghian Medical Research Foundation to find a cure or treatments for Niemann-Pick Type C (NPC) disease.

Crawford, whose great-uncle Pomp played football for Knute Rockne at Notre Dame, visited Blue-Gold and other games while he was growing up in northeastern Ohio. His boyhood dream of playing for a Notre

Dame coach was fulfilled, he says, when he became part of the team

that includes the Ara Parseghian Medical Research Foundation in the fight against NPC disease. The book details Notre Dame's relationship with the Parseghian Foundation and Crawford's three cross-country bike rides to raise awareness for NPC.

Other book chapters describe Crawford's encounters with President Jimmy Carter and President Barack Obama; catching muskie with Father Ted Hesburgh at Land O'Lakes; meeting legendary Notre Dame professors, innovative administrators and inspiring entrepreneurial students; watching a professional football game with Condoleezza Rice and pilot "Sully" Sullenberger; sponsoring the Pink Zone luncheon to honor breast cancer survivors, researchers and doctors; dancing with a professional to raise money for the Center for the Homeless; and participating with Father Tom Streit in the University's extensive work in Haiti, both before and after the earthquake.

The story includes nearly 150 names and diverse locations. "It's an example of how learning happens not only for undergraduates and graduate students but even for a Notre Dame science dean," Crawford says.

The 200-page book is for sale at the Hammes Notre Dame bookstore and through Corby Books.



MATT CASHORE



# Schurz Innovation Prizes honor students' mobile app designs

Winner is photo-sharing app

BY GENE STOWE, FOR NDWORKS

Students from Assistant Professor Christian Poellabauer's mobile computing class presented six out-of-the-box, media-related mobile applications on Dec. 10 in the first Notre Dame-Schurz Innovation Prize competition.

Schurz Communications, owners of the South Bend Tribune and other media outlets across the United States, cosponsored the contest, in which science and engineering students develop and test digital media solutions. The final competition was held in the auditorium of the Eck Visitors Center.

Juniors **Taylor Seale** and **Ryan Shea** won the \$3,500 top prize with "Map Pics," an application that broadens photo sharing from a friends-based model to a location-based model.

The app displays a map of all the images taken in a certain area—different locations on campus on a football Saturday, for example. During big events, Seale and Shea point out, there are a lot of people sharing photos via Twitter and Facebook. Rather than seeing photos in a friend's news feed, users could click a pin on a map and see all the photos uploaded from that location, from all users.

The app, which can be linked to Facebook, also would make advertising available, such as restaurant dinner specials in the location searched. It can be developed to filter photos more specifically and to exclude undesirable photos.

**David Lopes** and **Nathan Wickham** won the \$1,500 second prize with "News Cloud," an app that helps readers find the stories they want to read. The app offers floating keywords that readers can combine to pinpoint articles.

PHOTOS: CAROL C. BRADLEY



From left, Todd Schurz, CEO of Schurz Communications; Nitesh Chawla, Frank M. Freimann Collegiate Associate Professor of Computer Science and Engineering; winners Taylor Seale and Ryan Shea; Christian Poellabauer, associate professor, and Pat Flynn, professor, both in the College of Computer Science and Engineering; and Frank Schurz, chairman of Schurz Communications.

The app can make money with both traditional and sponsored advertising. It can include features to limit a search to a certain section, such as sports or news. Keywords are presented in different sizes to indicate their frequency in stories.

"Searching for news is boring," Lopes says. "We don't know what we want to read about sometimes; we just want to be shown what's hot."

**Justin Bartlett** and **Eli Kloswick** won the \$1,000 third prize with "Mobile Radio Contest," which offers an update to the already passé text-based contest entry. Contestants enter by shaking their phone—the app provides instant feedback about whether you won and where you placed.

Users would provide email addresses to sign up, and necessary information would be stored under usernames. Requiring contestants to

enter a phrase given by the station would boost listenership.

Other competing apps were: "Room Me" by **Everaldo Agular**, aimed at matching roommates by comparing profiles and scoring similarity. The Facebook-like app could be attractive to apartment complex owners and utility providers as well as a market of 21.6 million college students and others across the country seeking shared housing.

"iReporter" by **Jonas Elias Flesch**, which connects ordinary people who supply content to journalists, who fashion the material into professionally presented stories. The app could be developed to include user authentication, moderation of contributions, tracking of contributors and a social media-style website with a section for submitted material that was not used by the journalist.

"What the FM?" by **William McGough** and **Patrick Raycroft**—both pianists and passionate musicians—brought together traditional radio and smartphones. The app allows users to identify songs they hear on the radio, and tap and



Todd Schurz announces the winners of the competition.

build playlists from the broadcast. Users also can listen to a 30-second song preview and click to buy the song from iTunes.

"There are not a lot of great digital ideas around radio," says Todd Schurz, CEO of Schurz Communications, who praised the students for developing two ideas around the medium. Participants could potentially be recruited for work at the media company, which

has committed \$25,000 per year to the contest for two years, or the apps could be developed commercially.

Schurz was on the prize jury along with Pat Flynn and Nitesh Chawla, both professors in the College of Computer Science and Engineering, and Frank Schurz, chairman of Schurz Communications. Schurz Communications is funding a similar media innovation challenge at Indiana University in Bloomington.



# Students to lease iPads in lieu of textbooks



Course materials will be free

BY LENETTE VOTAVA, OIT

This spring students in three classes—under a new pilot program—will lease iPads instead of buying books and other standard course materials.

**Andre Murnieks**, assistant professor of art, and **Elliott Visconsi**, associate professor of law, will offer classes with iPads at the heart of the learning experience.

Students will lease an iPad in lieu of a textbook for \$70 per semester through the bookstore. All course materials are free to students, including a custom-built iBook textbook. Introductions will be recorded each week as students use the iPad as a platform for out-of-class discussion and collaboration through Google Apps such as Drive and GooglePlus.

Software applications include a group of free consumer and edtech software tools, including iTunesU and iBooks Author, Twitter, Google+, Poll Everywhere and Flipboard. Students will learn how to navigate the current information ecosystem as content creators rather than researchers.

"The goal is to experiment with a born-mobile pedagogy that includes a teaching and learning style with assignments, collaboration opportunities, software tools and strategies built for the unique experience and attributes of mobile devices such as the iPad," says Visconsi.

According to Murnieks, the iPad is a valuable emerging technology for designers. "Mobile is one thing, but touch and gestural input is another realm of interaction design all together," he says. "Every design student has access and complete control over the device, and this has made a significant impact on my classes."

The classes that will be part of the pilot program are "Design and Intro to the First Amendment: Freedom of Expression in the Digital Age" (Law School); and "Introduction to Web-Based Interactivity, and Data-Driven Design" (Department of Art, Art History and Design).

A partnership between the Registrar's office, Office of Information Technologies, Hammes Bookstore, Financial Aid, Student Accounts, the Law School and the art department was behind the design of this valuable pilot project.



# Engineering for intermediate school students

## Fluid dynamics competition is third at the University

BY GENE STOWE, FOR NDWORKS

For the third consecutive year, Notre Dame cosponsored the National Fluid Power Association Fluid Power Challenge for intermediate school students in the South Bend Community School Corp. The event was held Dec. 7 in Stepan Center.

Thirteen teams from 10 schools spent the morning building machines that they had designed and prototyped over six weeks as part of the program. Judges evaluated portfolios, including blueprints, drawings and discarded designs, and observed the students' teamwork, safety and other skills.

The students build a lifter of wood and paper and operate it with compressed air from syringe pumps. Their machine's success at the task of moving a wooden block was one-fifth of their score. Overall competition winner was the team from Clay Intermediate School.

Organizer Larry Davis, owner of Daman Products in Mishawaka and a member of the National Fluid Power Association, said the program is designed to introduce young people to real-world skills.

"It gives them an opportunity to experience three-dimensional stuff, mechanical engineering concepts and hydraulic concepts, in a fun environment," he said. "They learn to manage their time. They learn utilization of resources. They learn they are more effective if they work together. They come out of here understanding how to build things in 3-D.

"They're good at working two dimensions. When you add that third dimension, it's news to them. They're using different parts of their brain. They have to start with this

pile of stuff and transform that into a machine that will do some kind of work. They find it stimulating. It's project-based stuff, which is what we think education should be."

Although the project involves engineering, the skills have a broad range of applications, Davis says.

"These guys will remember what they've done here when they're 70," he says. "They'll take lessons from what they're doing here into life and refer back to this time. It's the world of work—administration, military, manufacturing. It's what we all want. We're trying to move education along.

"We've always had a fascination with improving education by virtue of what we're able to hire and the lack of ability and skill. We know it all starts with education and how kids are prepared. We've been hunting for ways to improve education that advance and move that bar. We've been a partner with Notre Dame for three years."

Davis says the program operates in four other U.S. locations and is attracting more attention.

"Other people throughout the country are interested in promoting similar things," he says. "What's unique about our deal versus similar deals that go on is Notre Dame is really engaged and has volunteered mentors from their mechanical engineering program to come into the schools and help teachers. Notre Dame is looking for ways to reach out into the community and have an impact. This is an awesome connection for them."

*Thirteen teams from 10 intermediate schools competed in the third annual Fluid Power Challenge on Dec. 7. Students designed and prototyped their models over six weeks; judges evaluated their portfolios, including blueprints, drawings and discarded designs.*

PHOTOS: CAROL C. BRADLEY



Top, working models are put through their paces before the judges. Bottom, readying projects for competition.

# BioEYES introduces schoolchildren to science



The BioEYES community outreach program has introduced more than 12,750 local students to science, using zebrafish.

## Program has reached 12,750 K-12 students

BY GENE STOWE, FOR NDWORKS

Over the past five years, BioEYES, a community outreach program of the Notre Dame extended Research Community (NDeRC), has introduced more than 12,750 local K-12 students to scientific research and biology concepts using zebrafish.

The program, which has cooperated with 85 teachers in 41 schools, reached the end of its grant funding this year, but will resume for middle school students next semester with support from the College of Science and the departments of Physics and Biology.

BioEYES, which originated at Thomas Jefferson University, was recommended by **David Hyde**, Notre Dame professor of biological sciences and director of the Center for Zebrafish Research.

It was adapted locally with expanded teacher training connected to research and graduate students on campus. In some places, such as the Chesapeake Bay area, BioEYES has connected with the local community to conduct water quality projects.

A similar effort with Bowman Creek, the most polluted local tributary of the St. Joseph River, could link BioEYES with NDeRC's Enviro program, which has engaged 2,000 students in environmental stewardship programs such as testing groundwater in 160 wells and mapping contaminants.

**Tom Loughran**, a professional specialist in the Department of Physics and the managing co-principal investigator for NDeRC, says the management team led by principal investigator **Mitchell Wayne**, chair of the Department of Physics, is working to find funding to sustain BioEYES.

The program involves weeklong observations of zebrafish hatching and growing, with simple lessons for younger students and sophisticated genetics instruction in high school. "It's a promising program, very scalable, and extremely popular," Loughran says.

NDeRC will host the sixth annual Collaborating for Education and Research Forum from 8:30 a.m. to 2 p.m. Saturday, Feb. 23. Local educators will learn about numerous opportunities to integrate research into their curricula and partner with Notre Dame faculty.





## FITNESS CLASSES

Registration opens online via RecRegister at 7:30 a.m. Thursday, Jan. 17, at [recsports.nd.edu](http://recsports.nd.edu). "Try it, You'll Like it" week of free fitness and F.A.S.T. is Jan. 14-20. Classes meet Jan. 21-May 1. Classes will not meet during Spring Break, March 9-17, or Easter Break, March 29-April 1. Deadline to receive full refunds is 10 p.m. Sunday, Feb. 3; half refunds 10 p.m. Sunday, Feb. 17.

### MONDAYS

Time	Class	Instructor	Location	Fee
6:15-7 a.m.	Sunrise Cycle	Indiana	Rockne B026	\$49
11-11:45 a.m.	Gentle Healthy Toning	Patty	RSRC AR 2	\$24
12:15-1 p.m.	Pilates Mat	Jenn	RSRC AR 1	\$56
5:30-6:15 p.m.	Aquacise	Patty	Rockne Pool	\$24
5:30-6:15 p.m.	Indoor Cycling – 45	Keshia	Rockne B026	\$49
5:30-6:30 p.m.	Yoga	Steve	Rockne 205	\$59
5:30-6:30 p.m.	Zumba	Gisele	RSRC AR 1	\$26
5:30-6:30 p.m.	Pure Barre	Bre	RSRC AR 2	\$26
6:30-7:15 p.m.	Indoor Cycling – 45	Angela	Rockne B026	\$49
6:45-7:45 p.m.	Power Flow Yoga	Steve	Rockne 205	\$59
6:45-7:45 p.m.	Cardio Kickboxing	Lisa	RSRC AR 1	\$26
6:45-7:45 p.m.	Body Sculpt	Indiana	RSRC AR 2	\$26

### TUESDAYS

6-7:15 a.m.	Power Yoga	Steve	RSRC AR 1	\$67
12:10-12:50 p.m.	Yoga	Linda	RSRC AR 1	\$60
12:15-12:45 p.m.	Cycle Express	Chris	Rockne B026	\$46
5:30-6 p.m.	Tabata Plus	Lisa	RSRC AR 2	\$23
5:30-6:15 p.m.	Indoor Cycling – 45	Chris	Rockne B026	\$53
5:30-6:30 p.m.	Pilates Mat	Judith	Rockne 205	\$63
5:30-6:30 p.m.	Zumba	Jennifer	RSRC AR 1	\$28
6:10-6:30 p.m.	Core Conditioning	Kari	RSRC AR 2	\$21
6:30-7:30 p.m.	Full Cycle	Indiana	Rockne B026	\$60
6:45-7:45 p.m.	Pilates Advanced	Patty	Rockne 205	\$63
6:45-7:45 p.m.	20/20/20	Annie D.	RSRC AR 1	\$28
6:45-7:45 p.m.	Cardio Sculpt	Kari	RSRC AR 2	\$28

### WEDNESDAYS

6:15-7 a.m.	Sunrise Cycle	Indiana	Rockne B026	\$53
Noon-1 p.m.	Yoga	Steve	RSRC AR 1	\$63
5:15-6 p.m.	Indoor Cycling – 45	Indiana	Rockne B026	\$53
5:30-6:15 p.m.	Aquacise	Patty	Rockne Pool	\$26
5:30-6:30 p.m.	Yoga Challenge	Steve	Rockne 205	\$63
5:30-6:30 p.m.	Flex N Tone	Annie S.	RSRC AR 1	\$28
5:30-6:30 p.m.	Cardio Core	Kari	RSRC AR 2	\$28
6:15-7 p.m.	Indoor Cycling – 45	Keshia	Rockne B026	\$53
6:45-7:15 p.m.	Tabata Plus	Kari	RSRC AR 2	\$23
6:45-7:45 p.m.	Zumba	Gisele	RSRC AR 1	\$28
6:45-7:45 p.m.	Yoga Basic	Patty	Rockne 205	\$63

### THURSDAYS

12:15-12:45 p.m.	Zumba Express	Kimmi	RSRC AR 1	\$21
12:15-12:45 p.m.	Cycle Express	Chris	Rockne B026	\$43
5:30-6:15 p.m.	Indoor Cycling – 45	Chris	Rockne B026	\$43
5:30-6:30 p.m.	Pilates Mat	Patty	Rockne 205	\$59
5:30-6:30 p.m.	20/20/20	Indiana	RSRC AR 2	\$26
6:45-7:45 p.m.	Zumba	Jennifer	RSRC AR 1	\$26
6:45-7:45 p.m.	Flex N Tone	Indiana	RSRC AR 2	\$26

### FRIDAYS

6:15-7 a.m.	Sunrise Cycle	Indiana	Rockne B026	\$45
5:30-6:30 p.m.	Cardio Funk	Megan	RSRC AR 2	\$22

### SATURDAYS (Meets six weeks: Jan. 26-March 2)

12:15-1:15 p.m.	Power Flow Yoga	Steve	RSRC AR 1	\$27
12:15-1:15 p.m.	Cardo Core	Annie D.	RSRC AR 2	\$12
1:30-2:30 p.m.	Body Sculpt	Indiana	RSRC AR 2	\$12

### SUNDAYS

1:15-2:15 p.m.	Full Cycle	Indiana	Rockne B026	\$20
1:30-2:30 p.m.	Yoga	Patty	RSRC AR 1	\$47
1:30-2:30 p.m.	Cardio Kickboxing	Megan	RSRC AR 2	\$50
2:45-3:45 p.m.	20/20/20	Patty	RSRC AR 1	\$22
4-5 p.m.	Pure Barre	Bre	RSRC AR 2	\$22

## F.A.S.T. (Faculty and Staff Training)

Classes open to employees, spouses and retirees. Classes meet Jan. 21-May 17, unless otherwise noted. Registration opens online via RecRegister at 7:30 a.m. Thursday, Jan. 17. "Try it, You'll Like it" week of free fitness and F.A.S.T. is Jan. 14-20. Classes will meet during Spring Break, March 9-17, but will not meet Easter Break, March 29-April 1. Deadline to receive full refunds is 10 p.m. Sunday, Feb. 3; half refunds 10 p.m. Sunday, Feb. 17.

### MONDAYS

Time	Class	Instructor	Location	Fee
9-10 a.m.	Flex N Tone	Indiana	RSRC AR 2	\$34
12:15-12:45 p.m.	Cardio Express	Patty	RSRC AR 2	\$28

### TUESDAYS

9-10 a.m.	Zumba	Kimmi	RSRC AR 1	\$34
9-10 a.m.	Cardio Sculpt	Jenn	RSRC AR 2	\$34
12:15-12:45 p.m.	Flex N Tone	Indiana	RSRC AR 2	\$28

### WEDNESDAYS

9-10 a.m.	Yoga	Steve	RSRC AR 1	\$77
12:15-12:45 p.m.	Cardio Express	Indiana	RSRC AR 2	\$28

### THURSDAYS

9-10 a.m.	Cardio Sculpt	Indiana	RSRC AR 2	\$34
12:15-12:45 p.m.	Flex N Tone	Indiana	RSRC AR 2	\$28
5:30-6:30 p.m.	Body Sculpt	Alyssia	RSRC AR 1	\$34

### FRIDAYS

9-10 a.m.	Pilates Mat	Jenn	RSRC AR 1	\$72
12:15-12:45 p.m.	Cardio Express	Indiana	RSRC AR 2	\$26

## INSTRUCTIONAL SERIES

Registration opens online via RecRegister at 7:30 a.m. Thursday, Jan. 17. Classes meet for series of weeks rather than semester-long. Classes will not meet during Spring Break, March 9-17, or Easter Break, March 29-April 1. Deadline to receive refunds is 11 p.m. the first Friday after the class meets.

## CERTIFICATION SERIES

<b>Sundays</b> Feb. 4-March 3				
3:30-7:30 p.m.	S.C.U.B.A.	Kathy	Rockne Pool	\$215
<b>Sundays</b> TBD				
TBD	Lifeguard Training	TBD	TBD	\$TBD
<b>Tuesdays</b> Feb. 5-April 23				
6-9 p.m.	Water Safety Instruction	Sarah	Rockne 110	\$150
<b>Wednesdays</b> TBD				
TBD	Lifeguard Instructor (LGI)	TBD	TBD	\$200
<b>Wednesdays</b> TBD				
TBD	Lifeguard Training	Sarah	Rockne 110	\$TBD

## DANCE SERIES

<b>Mondays and Wednesdays</b> Jan. 28-April 10				
7:55-8:50 p.m.	Beginner Ballet	JoAnn	RSRC AR 2	\$60
<b>Mondays and Wednesdays</b> Jan. 28-April 10				
8:55-9:50 p.m.	Intermediate Ballet	JoAnn	RSRC AR 2	\$60
<b>Mondays</b> Jan. 28-April 10				
8-9 p.m.	Hip Hop Dance	Bre	RSRC AR 1	\$35
<b>Tuesdays</b> Jan. 29-April 9				
8-9 p.m.	Jazz Dance	Bre	RSRC AR 2	\$35
<b>Thursdays</b> Jan. 31-April 11				
8-9 p.m.	Partner Latin Dance	Ramzi	RSRC AR 1	\$35

## TRX SERIES

<b>Mondays</b> Jan. 28-Feb. 25				
12:15-12:45 p.m.	TRX 101	TBD	Rockne 109	\$TBD
<b>Tuesdays</b> Jan. 29-Feb. 26				
5:15-6 p.m.	TRX 101	TBD	Rockne 109	\$TBD
<b>Wednesdays</b> Jan. 31-Feb. 27				
12:15-12:45 p.m.	TRX 101	Jenn	Rockne 109	\$20
<b>Thursdays</b> Jan. 31-Feb. 28				
6-6:45 p.m.	TRX 101	TBD	Rockne 109	\$25
<b>Mondays</b> March 18-April 15				
TBD	TRX 101	TBD	Rockne 109	\$20
<b>Tuesdays</b> March 19-April 17				
5:15-6 p.m.	TRX 202	TBD	Rockne 109	\$25
<b>Wednesdays</b> March 20-April 11				
TBD	TRX 202	Jenn	Rockne 109	\$20
<b>Thursdays</b> March 21-April 18				
6-6:45 p.m.	TRX 202	TBD	Rockne 109	\$25

## WELLNESS SERIES

<b>Saturdays</b> Feb. 2-Feb. 26				
1:30-2:30 p.m.	Pre/Post Natal Yoga I	Sue	RSRC AR 1	\$22
<b>Saturdays</b> April 6-May 4				
1-2 p.m.	Pre/Post Natal Yoga II	Sue	RSRC AR 1	\$22

## UNIVERSITY VILLAGE SERIES

<b>Mondays</b> Feb. 4-March 4				
7:30-8 p.m.	Flex N Tone	Sue	University Village	\$8
<b>Mondays</b> March 18-April 15				
8-9 p.m.	Yoga	Sue	University Village	\$22

## FOR FAMILIES

Register online via RecRegister at [recsports.nd.edu](http://recsports.nd.edu).

### EVEN FRIDAYS 5:30-7:30 P.M.

Jan. 25 Family Bowling  
Feb. 8 Family Dive-In Movie  
Feb. 22 TBD  
March 8 Family Swim  
March 22 Family Volleyball Clinic  
April 12 Family Activity Night  
April 26 TBD

### FAMILY FIRST CLASSES

Sundays  
Family Climbing I Feb. 3-24  
Family Climbing II April 7-28

### LEARN-TO-SWIM SWIM LESSONS

Register online via RecRegister at [recsports.nd.edu](http://recsports.nd.edu).

### SESSION I

Swim Assessment is 5:30-7:30 p.m.  
Jan. 18 and 5:30-7:30 p.m.  
Jan. 25 at Rockne Memorial Pool  
Register for Session I opens  
9 a.m. Monday, Jan. 21, online  
via RecRegister; closes 5 p.m.  
Friday, Feb. 1.  
Mondays and Wednesdays  
4:30-5:30 p.m. Feb. 4-27  
Saturdays  
11 a.m.-2 p.m. Feb. 2-Feb. 23  
Sundays  
11 a.m.-2 p.m. Feb. 3-Feb. 24

### SESSION II

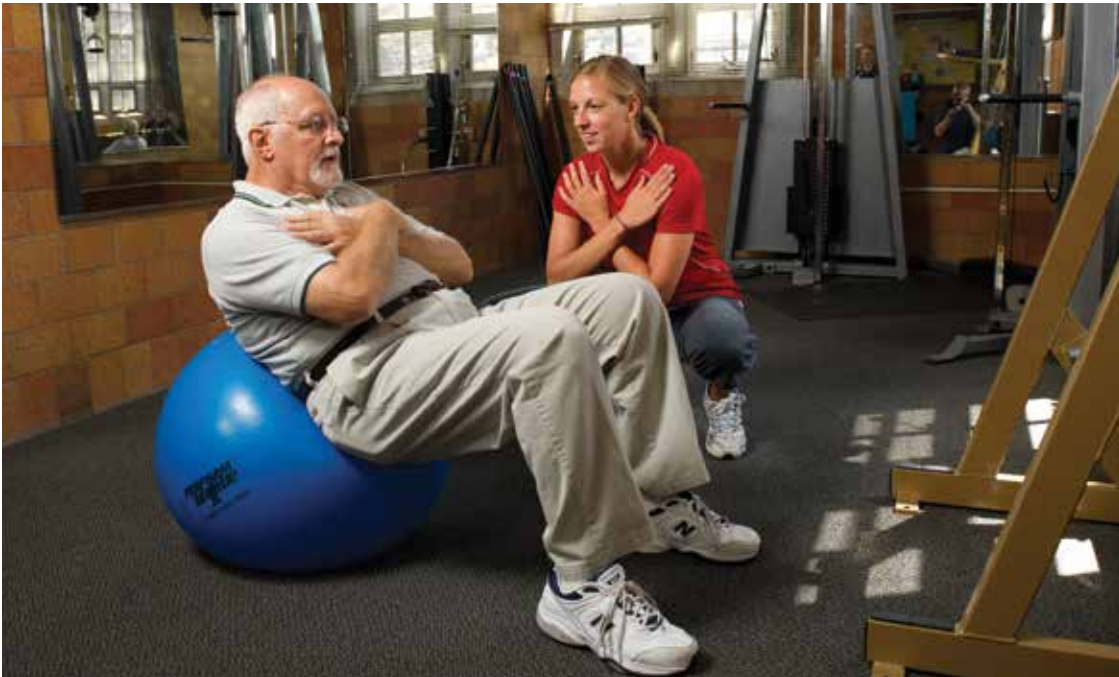
Make-Up Swim Assessment  
is 5:30-7:30 p.m. March 22 at  
Rockne Memorial Pool.

Registration for Session I opens 9 a.m.  
Monday, March 25, online  
via RecRegister; closes 5 p.m.  
Friday, April 5.  
Mondays and Wednesdays  
4:30-5:30 p.m. April 8-May 1  
Saturdays 11 a.m.-2 p.m. April 6-27  
Sundays 11 a.m.-2 p.m. April 7-28

For more information  
or to register via RecRegister,  
visit [recsports.nd.edu](http://recsports.nd.edu)



# Personal training to help meet fitness goals



PHOTOS: MATT CASHORE

## Program tailored to client's assessment results

BY GENE STOWE, FOR NDWORKS

The RecSports personal trainer program provides expert help for individuals and small groups (both students and non-students) in meeting fitness goals, from general toning to targeted improvement in a specific area, such as improving a golf swing or running a 5K.

The 5-year-old program, with 10 mostly part-time trainers, offers a fitness assessment and one-on-one

or small-group training, says **Jennie Phillips**, fitness assistant director, recreational sports.

"The trainer will develop a program tailored specifically to a client's assessment results and goals," she says. "The trainer and client will then work together towards improvement and goal achievement. We're fortunate to have a dedicated training studio at the Rockne Memorial. The setting allows clients to learn and gain confidence in their exercise abilities without having lots of other people around."

Trainers are focused on functional training. A workout session might use equipment such as dumbbells, resistance tubing, medicine balls, kettlebells or balance pieces, as well as strength training, cardio, balance and flexibility.

"It's definitely not about having

a trainer stand around and count someone's reps," says Phillips. "People will learn to use the equipment safely and effectively, so they can continue to exercise on their own on campus, at home or on the road."

Personal training packages of three, six or 10 sessions are available for employees, their spouses, retirees and students. Registration and payment take place via RecRegister, [recsports.nd.edu](http://recsports.nd.edu). Registration packets can also be downloaded at [recsports.nd.edu/programs/personal-training](http://recsports.nd.edu/programs/personal-training). Submit completed packets to RecSports in Rolfs Sports Recreation Center. Someone will contact you to schedule a fitness assessment.

"We're capable of much more than we give ourselves credit for, when a trainer is there to hold us accountable and motivate us towards a goal. Don't just make a resolutions for 2013," she says. "Let RecSports help you make a long-term commitment to your health and fitness."



## SERVICE ANNIVERSARIES

The University congratulates the following employees who celebrate significant service anniversaries in January, including **Victor J. DeCola**, Business Process Advisory Services, 35 years.

### 30 years

**Terrence W. Rettig**, physics  
**Gerald L. Zerkle**, preventive maintenance

### 25 years

**Mary R. Erickson**, Morris Inn  
**Loretta J. Logan**, Custodial Services

### 20 years

**Richard S. Bullene**, School of Architecture  
**Julia B. Ettl**, Notre Dame Magazine  
**Jeffrey L. Feder**, biological sciences  
**Bozena E. Karol**, Hesburgh Library  
**Richard A. Lipinski**, security  
**Mark M. Richmond**, Micro Electronics Laboratory

### 15 years

**Brent A. Bach** and **Yahya C. Kurama**, civil engineering and geological sciences  
**George E. Bailey**, Morris Inn  
**Steven J. Brady**, First Year of Studies  
**Daniel R. Brewer**, Procurement Services

**John W. Goodwine**, aerospace and mechanical engineering

**Carrie F. McCann**, Office of the Chief Information Officer  
**Daniel J. Myers**, Office of the Provost

**Stephen Sporinsky**, Customer Support Services  
**Kevin J. Wangler**, music  
**Kevin Whelan**, Dublin Program

### 10 years

**Theresa Bollinger**, Integrated Imaging Facility  
**Nancy Chapleau**, Office of the President  
**Lori Dutka**, Law Library  
**Bridget Filipiski**, Custodial Services  
**Leigh A. Hayden**, DeBartolo Performing Arts Center  
**Pamela J. Hutchings**, psychology  
**Diane Navarre**, Morris Inn  
**William G. Schmitt**, Alliance for Catholic Education  
**Aaron Striegel**, computer science and engineering  
**Stephen Tapp**, EIS – Core Services  
**Christopher S. Temple**, registrar  
**Edward L. Verhamme**, Accounts Payable  
**Christopher J. Waller**, economics and econometrics

## NEW EMPLOYEES

The University welcomes the following employees who began work in **November**:

**Lindsay R. Burnside** and **Nathan Morris**, biological sciences  
**Danilton G. Clarke**, varsity strength and conditioning  
**Evan Grantham-Brown**, academic and administrative services, OIT

**Linda Kurtos**, Campus Services  
**Donald M. Mester**, General Services  
**Elizabeth J. Metz**, Alumni Association  
**Michael Mueller**, Hesburgh Libraries  
**Augustine T. Welsh**, Joyce Center

## PINK ZONE SPIN-A-THON



MATT CASHORE

RecSports has teamed up once again with Women's Basketball and the College of Science to raise money for breast cancer awareness and local research. The 24-Hour Pink Zone Spin-A-Thon takes place from noon Friday, Jan. 25, through noon Saturday, Jan. 26, in the Rockne Memorial Cycling Studio B026. Registration is open online via RecRegister at [recsports.nd.edu](http://recsports.nd.edu). Reserve your bike and time slot with your donation—minimum suggested donation is \$1. Please help us in our goal to reach \$15,000 with the event. Ride for one, two, or 24 hours! The event is open to the Notre Dame campus and local community members. Questions? Contact RecSports Fitness, 631-3432.



PHOTO PROVIDED



# Plaque installed for 'Homage to Pythagoras'

86-year-old artist's work recognized

BY GENE STOWE, FOR NDWORKS

Artist **John J. Dunn** was exhibiting some of his ceramic tiles at a furniture show in South Bend in the early 1960s when someone showed him a big roll of architectural plans for the construction of McKenna Hall.

On a specification sheet, Dunn noticed the name of a company in Pennsylvania that once fired him after four months' work. He decided to compete against them for the mural-making job in the building.

Within two weeks, he built a scale model of a mural for the wall along the open staircase in the building, drawing each of the 2,000 foot-square tiles at a scale of one-half inch to one foot. Dunn won the contract.

"It took a whole year of very, very hard labor," he recalls. "I did it single-handedly. It was a monumental, massive job. They (the tiles) could weigh up to 12 pounds. It was 16-hour days and sometimes 18-hour days. I also built a 200-cubic-foot kiln to fire tile. I had to build that before I made any tile."

The tiles are composed of several clays mixed with other materials and fired in the specially made kiln. One tile in the geometric set, in the middle of a main panel, includes the Pythagorean theorem, lending the name "Homage to Pythagoras" to the installation.



PHOTOS: LUCETTE MORAMARCO

A plaque with the work's name and the artist's name was recently installed on the 60-by-30-foot mural, which was completed in 1966 and restored as part of a McKenna Hall overhaul in 2010.

Dunn, who was born in 1926 in Liverpool, England, came to South Bend to teach at Saint Mary's College in 1961, after he answered an ad in *Craft Horizons* magazine.

Dunn was living in a Buckminster Fuller-style geodesic dome and working in a farmer's large barn in Jones, Mich., when he won the mural job.

He later quit his teaching job in protest after Sister Mary Renate, C.S.C., Saint Mary's president, banned his nude sketches from an exhibition at the college. She had ordered the drawing removed after receiving a complaint from an administrative assistant, who found the works "vulgar and suggestive."

He moved to Minneapolis to teach in the late 1960s, then to Kansas City and Wisconsin before he settled in Boulder, Colo., where he made murals, pots and sculptures. He moved to California in the late 1970s, where he still works, most recently on a series of hexagonal lanterns.

"Homage to Pythagoras" is still his favorite work. "I made sculptures and murals and things like that," Dunn says, "but that was the biggest and best."



Above, artist John J. Dunn, 86, who created the McKenna Hall mural in 1966, at work in his studio in Fallbrook, Calif.

## University Hairstylists a family affair



CAROL C. BRADLEY

The Emmons clan, from left: Aaron and Katy Austin, who are moving to Kentucky in January. Katy's brother is married to Robyn Emmons Stone (in turquoise), the oldest of the Emmons children. Seated, patriarch Jeff Emmons with wife Cindy; Zak Emmons, owner and manager of University Hairstylists, and at far right, Abby Emmons Mullins, who's currently on maternity leave—she's expecting triplets!

A campus tradition since the '70s

BY GENE STOWE, FOR NDWORKS

Jeff Emmons was cutting hair at somebody else's salon in the late 1970s when a friend who worked at Notre Dame told him that the University was planning to open a

hair salon for women, just a few years after the campus went coeducational.

Emmons bid on the job and won. "We started off in Badin Hall," he remembers. "There was a shoe store and an eight-chair barbershop. They took four of the barber chairs out. We put partitions down the middle of the room and I started hairstyling on the other side."

The business grew from three

chairs to five to seven, incorporating a mop room and closets as they outgrew the space. When the men's barber retired, Emmons took over that side, recruiting family members—and coworkers who became like family—to meet the growing demand. The business relocated to the basement of LaFortune Student Center after a mid-1980s renovation.

They were so busy that Emmons' wife, **Cindy**, a registered nurse, moved into hairstyling, followed in time by their son **Zak**, daughter **Robyn Stone**, Robyn's husband **Andy** for a while, Andy's sister **Katy Austin**, and the youngest Emmons daughter, **Abby**, who recently went on maternity leave—she's expecting triplets.

Zak Emmons was already studying at Vogue School of Beauty in the afternoons when he graduated from Mishawaka High School in 1996. Today he's the owner/manager of the campus salon. Zak's sisters, Molly and Caitlin, are in other businesses. Another sister, Sarah, is a professional hair model for Redken.

Notre Dame permitted Emmons to serve off-campus customers, but as the business grew in the early 1980s, he opened another shop in South Bend to handle the overflow and avoid conflicts with campus parking and traffic. Equipment moved from the old Notre Dame shop, including a shoeshine chair, furnishes Jeff's on Lincoln Way (1316 Lincolnway East, Mishawaka), where he moved about 15 years ago.

Emmons, who graduated from Mishawaka High School in 1963, worked his way through Indiana State University (tuition: \$6.50 per credit hour) by cutting hair at \$1 per head. His father had hired an Italian barber from Elkhart to teach him the trade. He earned a degree in geology, served a stint in the military and worked in business for a while before

returning to the chair full-time. In addition to his businesses, Emmons recently became the first elected school board official in Mishawaka.

University Hairstylists, located in the basement of LaFortune, sees a rare variety of customers, from guys from one-stoplight towns who've never been to another barber (and are shocked at the \$16 rate for a man's haircut) to cosmopolitans from coastal cities who've never paid less than \$30.

And although the shop is centrally located on campus, customers are never taken for granted. "Just because you're on campus, you're not guaranteed the business. You have to do a good job," says Emmons.

Of the salon business, he says, "It's really been a great experience for my family. My kids grew up sweeping the floor, folding towels and collecting change from under the pop machine. Half of them have become hairstylists. It's been a very blessed business. Notre Dame has always been our family, and I'm glad my family can carry on the business here."

They deal every day with people—students, faculty—who are stressed, Emmons adds. "Getting your hair done should be a relaxing experience. We want people to leave feeling better than when they came in."

For more information and a price list, visit [universityhairstylists.com](http://universityhairstylists.com), 631-5144.