BIOLOGY DEPARTMENT ADDS MICRO-CT

PRINTMAKING ALUMNI WIN NATIONAL AWARDS

YWCA PARTNERSHIP AIDS COMMUNICATION

CHEMISTRY CLASS STUDIES MASTODON TUSK
8 Making an Impression

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Clockwise from upper left: The discovery of the mastodon tusk; A still from film clips students created about the Iowa State Penitentiary; The Department of Technology and Philosophy and World Religions interdisciplinary table project; Wetlands restored by alumna.
Today, several of the departments in the College of Humanities, Arts and Sciences hosted alumni as part of our Alumni-in-Residence program. On a beautiful (if somewhat overcast) autumn day, these alums came to campus to meet with students and faculty, and although each graduated from different departments, there were many commonalities about their visit.

The group shared the successes they have experienced in their careers and reminisced about their time at UNI. They spoke about how the physical appearance of the campus changed since they were on campus as students. They mentioned the new buildings (Gallagher Bluedorn Performing Arts Center), or recently remodeled buildings (Bartlett Hall), or buildings that no longer stand on campus (Baker Hall). The physical campus is very different, even for the more recent alums.

The alums also talked about their experiences at UNI. Each mentioned professors who challenged them and friends who helped them learn about life beyond the classroom. Each spoke about academic experiences outside the classroom—ranging from tasting trees on campus as part of a biology assignment to student teaching in the local community—that helped form their lives. Their time on campus was shaped by people and experiences that were unique to UNI. It is this part of the UNI experience that is very much the same.

In this issue of Communiqué, we are featuring several stories about current and former students and the impact that caring faculty and outstanding experiences outside the classroom are having on them. These experiences lead to fascinating opportunities and careers. There are not many universities that can claim to have a music major working at NASA, undergraduates preserving Mastodon tusks or a celebration of 50 years hosting the oldest literary review in the nation. We are proud that in each of these stories you will find students working closely with outstanding faculty on exciting projects.

I hope you will find these stories reflective of the type of experiences you had at UNI.

Sincerely,

John Fritz, Ph.D.
Dean, College of Humanities, Arts and Sciences
A single word keeps coming up when discussing printmaking: magic. Art professors Tim Dooley and Aaron Wilson liken catching the first glimpse of a print to the ‘reveal’ of a magic trick. The end product is hidden by the process, whether it be a silkscreen or a press. And then, when the ink is in place and the result appears, it’s a transformation that causes excitement and awe.

It’s a process University of Northern Iowa alumni have mastered. Most notably, alumni have been recognized by the Southern Graphics Council International (SGCI) in three out of the past four years. SGCI is the nation’s largest organization of printmakers, and each year they award two fellowships, one for an undergraduate student and one for a graduate student. The fellowships come with a cash award and the opportunity to do a solo exhibition at the following year’s annual SGCI conference, providing great exposure.

Alumna Louise Fisher, currently in her last year of graduate school at Arizona State University, won this year’s graduate fellowship. Her solo exhibition will be in Dallas in March 2019 at the next SGCI conference. Fisher says she is fascinated by the way time moves in cycles. “The Iowa landscape taught me quite a bit about this when I was young—the stark change of seasons, the growth of crops, the movement of the stars across an expansive prairie sky, the regeneration of cicadas in the summer,” said Fisher. “Repetition is evidence of time passed; this is why I find myself drawn to printmaking and photography as they both have the potential to create multiples of the same image.”

Her current work for exhibition includes two series, combining large-scale prints with hand-drawn layers and photography. Her thesis project is exploring scientific, historic and poetic aspects of sleep and the day/night cycle, and she’ll also have an exhibit to showcase that work in the spring.

In 2016, Dana Potter won the undergraduate award as a UNI student. Her SGCI exhibition was held at the Hudgens Museum in Atlanta and featured a series of screenprints using social media advertisements and a group of prints exploring computer mouse movement tracking and interface layouts. Her work was based on her investigations in targeted digital advertising.

Potter has recently begun using eye tracking software on self-generated imagery in an “I Spy” format. In doing so, she’s exploring the nature of play and invention in technology, finding practical and impractical purposes. She’s currently a graduate student at the University of Tennessee, Knoxville, one of the highest-ranked graduate schools for printmaking.

UNI alumnus BJ Alumbaugh was awarded the 2015 SGCI graduate fellowship while he was a graduate student at the University of Tennessee, Knoxville. For his exhibition, held in Portland, Ore. in 2016, he created an installation centered around the shared experience of seeing in the visual spectrum. Using large mylar sheets with transparent ink, Alumbaugh created an optical experience through color multiplication of overlapping sheets.
His current work is investigating the technological advancements of rendering images via colors, both printed and digitally with calculated dot patterns and color sequences. He works as a freelance designer and printer at Cryptic Press in Knoxville, Tenn.

Both Potter and Alumbaugh say their passion for printmaking developed while studying at UNI under Dooley and Wilson, who are themselves successful printmakers. The professors work to spread the joy of printmaking, both in students at UNI and in high schools around the state where they do workshops each semester. “The magic really happens when one sees the first results of wet ink on paper. That’s where people make a lasting connection to printmaking,” Alumbaugh said.

Dooley and Wilson also credit UNI’s excellent facilities with creating a draw for enrollment and having the equipment necessary for young artists to excel. The studio has apparatus for digital output as well as large-format hand-printing presses that provide capabilities most students haven’t been exposed to before.

The professors’ research into contemporary printmaking also lays a foundation for student success. “We often tie that research to emerging technologies in the field, such as utilizing a CNC laser to cut a woodblock for relief printing. This knowledge is passed down to our students to make sure they have a foundation based in both the traditional and the cutting edge,” said Dooley.

Their teaching style is proving successful as graduates of the printmaking program at UNI are attending the top graduate schools for printmaking, landing impressive internships and finding success at their professional endeavors. Alumnus Jake Manternach, a 2017 graduate, was recently hired by the Tampa Bay Buccaneers to design game day posters and other marketing materials. He credits his printmaking pieces in helping him to land the job. Potter agrees, saying the success of the program and recent accolades received by participants “is a testament to Tim [Dooley] and Aaron’s [Wilson] commitment to providing students the resources and flexibility they need to make meaningful, beautiful and well-researched work.”
Imagine you could see right through an animal. You could examine its bones, or the way the muscles are structured, and see the wispy veins and arteries flowing through the animal right before you. Thanks to a grant from the Roy J. Carver Charitable Trust, University of Northern Iowa biology students no longer have to use their imagination. The UNI Foundation helped to secure the award for just over $300,000 to fund the purchase of a micro-CT scanner, a 3D printer and computer workstations to operate the equipment. Now students can digitally dissect countless organisms, revealing the inner-workings of anatomy in precise detail, which can then be reproduced in 3D for further examination.

The micro-CT will be used to scan small specimens in the vertebrate anatomy class taught by Nathan Bird, assistant professor of biology. Bird says it’s a class that hasn’t changed much in the last hundred years, and it’s time that technology was utilized to make some big changes. Previously, students dissected a shark and a cat, representing the opposite ends of the vertebrate tree. But now, as long as the specimen fits into the 6-inch diameter opening of the machine, students can choose which organism they want to study and perform a digital dissection.

Scans from the micro-CT can be converted and reproduced on the 3D printer, so students will be able to output a bird skeleton or the organ system of a lizard. They can print a circulatory or nervous system four times larger than actual size to be able to study it in more detail. Vertebrate skulls can be printed, studied and put on display.

Preserved specimens can be obtained from museums, scanned and returned, while not destroying any tissues by dissecting. Then the scans can stay on file and can be rendered at will, so with each class the repository of different specimens available for study will grow.

The course is changing to mirror the dynamics of preprofessional programs such as veterinary and medical schools. Dissections will be done in groups and students will learn to operate the new equipment themselves. If they have already had these experiences as an undergradate, they are better prepared for success at professional and graduate schools.

UNI’s Department of Biology brings anatomy class into the twenty-first century with micro-CT and 3D printer

MICRO SCANS, BIG OPPORTUNITIES

Faculty Member Nathan Bird talks with a student about the anatomy of Sewellia lineolata (hillstream butterfly loach).
“It very quickly expands what is available for my students to look at and to play with,” Bird said. “They’re able to really explore the breadth of the vertebrate tree, whereas before they were limited to the ends.”

The micro-CT produces scans by detecting differences in density. It can also be used to scan things other than vertebrates, such as invertebrates, plants and rocks. The small machine can capture more detail through higher resolution images than a large CT scanner, with the capability to capture scans less than a micron in width. Scans are stacked to create a 3D rendering, which can be converted to the file type necessary to be sent through the 3D printer.

Introductory biology classes will also get exposure to the new technology, but students will have to take upper-level courses to get hands-on experience running the equipment. Undergrads and faculty members will utilize the instrumentation for their research projects, and a new class has also been proposed: Biological Design and Function. If approved, students could take scans of organisms and morph them, studying form and function to see if internal systems could be improved with modifications. Basically, students could design their own organism.

The students in Bird’s class will operate the machine themselves, something not many universities provide the opportunity to do. The University of Iowa and Iowa State both have micro-CTs, but they aren’t in the biology department, and students often don’t get to have hands-on experience with them. UNI students in Bird’s class will run the machine by themselves, convert the files and learn how to use the 3D printer, too. It’s resume-building experience coupled with industry-level technology that will get noticed on applications to post-collegiate programs like veterinary, dental, physical therapy and medical schools. “We’re really preparing our students for the next step, giving them a leg up,” Bird said. “It gives them talking points and makes them stand out among applicants.”

The micro-CT was built in Germany and included some add-ons to make it optimized for the university setting. A carousel will allow many specimens to be added at the same time and be scanned one after the other, and a posing module will let students better capture the scans they want. An old dark room was converted to house the micro-CT, 3D printer and computers together conveniently in the same area. “I’m really excited because no one within vertebrate anatomy is doing anything like this. It really puts UNI students at the next level in terms of competing, with that experience they’ll be getting,” said Bird.
A collaboration between UNI and the YWCA of Black Hawk County is tackling language barriers and providing assistance for people who are learning a second language. UNI students head to the YWCA two evenings a week to work with participants seeking to improve their English.

The free program offers no-cost transportation and child care, and anyone can show up to the informal but inclusive setting. On average, 40 to 50 UNI students from three classes — Advanced Conversation and Reading in Spanish, Teaching English to Speakers of Other Languages (TESOL) and Latinos in the U.S. — speak with 30 to 40 adults each week. Students have helped their eager learners with everything from reading maps and bus routes to going to the library and the courthouse and navigating social services.

Participants in the YWCA program come from a variety of backgrounds, and the mix is constantly changing. While Spanish was the most prevalent native language when the collaboration began in 2014, many participants now come from locations such as Burma, the Democratic Republic of the Congo, Angola, Central America and Croatia and speak French, Portuguese and native tribal languages, among others.

The result is that many of the UNI student volunteers are not fluent in the language of their partner. This presents a challenge, yet helps them learn the nuances of nonverbal communication and other coping strategies when the words aren’t there — useful skills for those who plan on teaching languages after graduation.

“Becoming proficient in a second language is not just learning the grammar and learning the vocabulary,” said Jennifer Cooley, professor of Spanish who has...
spearheaded the collaboration along with others. “It’s also learning nonverbal cues, it’s learning how to sit back and listen, and be able to ask the question three different ways. There are a lot of pieces of the puzzle when you’re trying to learn another language.”

Students rotate partners for each class, so they get to experience multiple languages and varying levels of English fluency. They also use textbooks and picture dictionaries to communicate and learn how to cross the gap between different languages.

“The idea of trying to tackle these really challenging situations and not being able to do it in your first language has proved to be very valuable for all the learners involved,” said Cooley.

The language classes also facilitate cross-cultural experiences. Students have shared fabrics and food from their home countries with each other and shown off their skills at a talent show. A rummage sale allowed learners to practice negotiating with money and discuss buying clothes.

As part of their coursework, some UNI students have the chance to plan a lesson for the evening program. They practice teaching it in Spanish to classmates to discover any potential challenges before giving the lesson in English to the YWCA participants.

The original UNI/YWCA language partnership began as an independent study. Students researched what language assistance was needed locally through interviews with management at YWCA and community feedback. After finding an unmet need among Spanish speakers, students produced translated documents like school registration and immigration forms to help them.

The project evolved into a more formal collaboration in 2015. “There were lots of Spanish-speaking people coming to the Cedar Valley at that time, so it was a good fit to have UNI students serving as language partners,” said Cooley. “It was a really good setup to get people in these very parallel situations where the UNI students are seeking to increase their communication skills in Spanish as a second language, and the YWCA students are seeking to improve their English language skills.”

Students have been inspired by the program to change majors or add additional languages or TESOL to their coursework. Some have decided to pursue social work or human resources after discovering a passion for helping people, while many discover the value of community engagement and plan to continue being involved after graduation.

“Students find value in it. They’re finding some intercultural skills that allow them to communicate with people from all different walks of life,” Cooley said. ■
It’s not every day you prepare to perform an experiment on something over 100,000 years old. But for students working in the Instrumental Analysis course taught by Josh Sebree, assistant professor of chemistry, that’s just what they get to do.

Thanks to a grant from the Roy J. Carver Charitable Trust secured by the UNI Museum, Sebree’s students are involved in a three-year project studying a mastodon tusk. The class is working to discover what methods have been used to preserve the tusk, as past preservation methods were ineffective and potentially dangerous, sometimes including materials like lead-based paint, lead plaster or asbestos.

Mastodons are large elephant-like mammals that inhabited North and Central America before becoming extinct. The tusk being studied was discovered in a gravel pit near Hampton, Iowa, in 1933 and was donated to the UNI Museum the same year. It is over 11 feet long and weighs 600 pounds, although it was broken at the tip by the workmen who found it. The museum displayed the tusk in the 1960s, but it has been in storage for the last 50 years.

The goal of the project’s current phase is to remove layers of artificial materials and get down to raw tusk. Then an outside conservator will come to help with cleaning, stabilizing and preserving the piece, but first, students must determine what substances are on the tusk so they can be removed effectively and safely.

Once the artificial materials on the tusk have been removed, the next step of the study is to run new tests on the exposed raw tusk to learn more about the mastodon itself. While there are many mastodon tusks around the state, this is the first large-scale study. “People are really interested in seeing what all we’ve done, what all we’ve been able to come up with, and how that can be used to then better understand the entire mastodon population in the state,” Sebree said.

Sebree’s class is organized such that students get to experience more aspects of a research project than just collecting data. “They have the first third of the semester to come up with a topic that pairs the chemical system with a material that can be tested with the correct instrumental technique,” he explained. Students determine what they are trying to discover, and pull all of the information together into a six-page proposal. They must include a Curriculum Vitae with their background experience, which helps them to prepare these documents for use after graduation.

After their proposals are peer reviewed and approved, students spend hands-on time learning the instrument they chose. Over 20 instruments are available to choose from, including an electron microscope, a hand-held spectrometer and a portable x-ray fluorescence device. Using their results, they create a poster presentation, and some students go on to submit findings for publication in journals.

At the end of the restoration, the tusk will be put on display, but the projects related to the tusk have been broad and useful across campus. Many students in different departments are doing work focused around the tusk, including Earth Science students who are planning a visit to the quarry where the tusk was discovered. They will study the geological features to learn more about the time period and where the tusk may have originated. UNI Museum interns, anthropology students and a research librarian have all done tusk-related activities as well. “It’s really brought together a large body of the campus population,” said Sebree.
At the oldest prison west of the Mississippi, the walls have a lot of stories. A collaboration between Humanities Iowa and filmmaker Dan Manatt shared some of those tales, as they produced a documentary about the old Iowa State Penitentiary in Fort Madison called The Fort: 177 Years of Crime & Punishment at the Iowa State Penitentiary. UNI’s Advancing Digital Production: Video Editing class, taught by Professor Francesca Soans, played a role.

Shot over four years by different directors, there were several hundreds of hours worth of footage. The students’ task: to create video vignettes of the people and locations in the state penitentiary to be used as educational material, placed on the film’s website and screened for the public.

The Iowa State Penitentiary, nicknamed “The Fort,” was founded in 1839, seven years before Iowa became a state. It closed in 2015 when a new facility opened, which is also featured in the film. Other subjects highlighted include the riot of 1981, the escape and capture of two inmates and the fifth-longest serving offender currently in the United States.

The class started with research on mass incarceration and other prison documentaries to help understand the nuances and challenges of presenting the subject. Prison staff members, inmates and other topics were chosen as the subjects to develop in the short films. Students worked in pairs to craft the interview and location footage into a compelling package. “As they worked on individual stories, I could see a deepening of their understanding of the issues. In addition, they learned valuable lessons about creativity in storytelling through the documentary format and through editing as they worked and re-worked their projects,” Soans said.

While there were challenges to overcome, including server space and editing software issues due to the large volume of data, the students learned a new professional editing system called Avid. They were also able to experience film editing with real-world issues, such as busy schedules, technological problems and working with a “client.”

The class screened their final cuts at the end of the semester, which resulted in 10 short story video segments used as promotional and educational material, placed on the film’s website and screened for the public.

Soans says the project brought out the students’ creativity, innovation and commitment in crafting their stories, and educated them on a topic that many people often don’t get to see. “What made this project unique was that students were exposed to the images, stories and people of a world hidden from our eyes, the world of the prison,” said Soans.

Thomas Hockey has been immortalized in the sky. Hockey, a University of Northern Iowa professor of astronomy, was notified in December that asteroid number 25353, also known as 1998 SY73, has been formally named “Tomhockey.” This honor is in recognition of his work on the Biographical Encyclopedia of Astronomers (2nd Edition). Orbiting in the asteroid belt, the asteroid is located on average about 2.4 times further from the Sun than the Earth, and it takes 3.8 times to orbit the Sun. Tomhockey has an orbital eccentricity of only 0.008, similar to Mars, with a value of 0 being a perfectly circular orbit. If you want to see Hockey’s asteroid, you’ll need a very large telescope or an excursion to Latham Hall.

Hockey also received the Donald E. Osterbrock Book Prize from the Historical Astronomy Division of the American Astronomical Society for his work on the encyclopedia. He served as editor-in-chief for the four-volume reference work, which contains biographical sketches of astronomers spanning antiquity to the modern era. It’s 2,434 pages long and features biographies of approximately 1,850 astronomers written by 250 authors. The award was presented at the IAU meeting in Grapevine, Texas.

Siobhan Morgan, Department Head, contributed to this story.
Christopher Martin has identified a problem: Science is poorly reported on in the news media. The University of Northern Iowa professor of communication studies is trying to remedy that through Science in the Media, an organization created to provide tools for journalists to tell better stories about environmental science in Iowa. Martin serves as its director.

“We wanted to figure out ways to provide sources for science reporting, and to provide data for news media to use for stories covering environmental science issues,” said Martin.

The group’s website, ScienceintheMedia.org, contains information to help reporters without a science background. But Martin has gone a step beyond providing tools by working with tomorrow’s journalists.

Science in the Media and IowaWatch, a journalism nonprofit, work with Cedar Falls High School journalism instructor Brian Winkel and his students to produce original investigative reporting each year. The ongoing collaboration was featured in the Columbia Journalism Review in April.

This year, the joint project focused on pesticide exposure risk at Iowa’s public schools. Of Iowa’s 1,321 public school buildings, data showed nine out of 10 are within 2,000 feet of cropland, putting 444,558 students and teachers at risk for pesticide exposure.

Cedar Falls students took that data, compiled by Martin and graduate student Abbie Shew, and used it to conduct interviews. They turned those interviews into articles, refining them with feedback from Martin, Winkel and Lyle Muller, IowaWatch’s executive director.
It’s a unique opportunity for the high school students. “Cedar Falls has the only weekly high school newspaper in the state, so the journalism students there are prepared to write frequently and deeply because they hone their skills over and over,” said Winkel.

Besides learning about the topic at hand, the students learn the value of science reporting, in addition to teamwork, interviewing, tenacity, civic engagement and writing skills, Winkel noted. “It’s the goal of everyone to expand deep storytelling on issues of social importance to more high school students around the state,” he said.

Stories done through the Science in the Media project have been picked up by media outlets such as The Waterloo/Cedar Falls Courier, the Des Moines Register, the Iowa City Press-Citizen, the Cedar Rapids Gazette and The Midwest Center for Investigative Reporting.

While the stories inform the public about potential science-related issues, they have also brought attention to these issues among politicians with the power to bring change. Last year’s project on nitrates in local watersheds led to increased discussion among state leaders after it was published, while students were able to raise the pesticide issue with unaware legislators from both parties. “Lots of good can come out of having investigative articles about these sorts of things,” said Martin.

The project is entering the last year of a three-year project supported by the Roy J. Carver Charitable Trust and is part of a larger Science in Action project with the Center for Energy & Environmental Education. Martin hopes to continue the project to teach more young journalists the value of science reporting and to produce additional in-depth stories about science issues for the people of Iowa.

Poor science reporting is a result of three main factors:

1. Budget cuts means no experienced reporters to cover the science beat.
2. Reporters and editors mistakenly think they must include “both sides” to be fair instead of focusing on evidence.
3. Scientists may not be trained as media sources and might do a poor job linking research to questions from reporters, while industries that benefit from twisting science usually employ spokespeople for just that purpose.
Soon, if you walk into the Fox Seminar Room in Bartlett
Hall, you’ll see the culmination of an interdisciplinary
project spanning three different courses and
representing the involvement of many on campus.

It began when Lisa Riedle, head of the technology
department, sent out a request looking for projects that
her Industrial Projects class could design. Jerry Soneson,
head of the philosophy and world religions department,
responded. Their conference room was lacking an
adequate table, and he had something in mind. It needed
to be large enough to fit the space, seat at least 20 people
and be curved like a boat so everyone sitting at the table
could see each other.

Riedle and Soneson found a construction partner
in the Capstone class of Scott Greenhalgh, assistant
professor of industrial technology. The class, about the
relationships between technology and society, was very
popular, with nearly twice the enrollment of many
other Capstone classes.

To begin, a team of four in Riedle’s class researched and
completed a feasibility study before moving to the design
of the table. They worked with Carol Christopher, UNI
interior design coordinator, to make sure the look fit in
with the campus aesthetic. They also had to make sure
the table could make it to the second floor conference
room via the elevator or the stairway and account for
equipment restraints to make sure pieces would fit in the
appropriate machinery during construction.

The chosen design was in the style of the Shakers,
embodying their hallmarks of clean lines, quality
craftsmanship and no visible hardware. Greenhalgh
suggested the Shaker style, finding their own unique
American religious story an appropriate fit for the
table’s destination in the Department of Philosophy
and World Religions.

As it was a Capstone class made up of a variety of
majors, many of the students had no experience in
carpentry. They split up into teams to build the table,
with team leaders who had woodworking knowledge
aiding those without. Greenhalgh says that was one
of his favorite parts of the project, “throwing out a
challenge with some unknowns and seeing students
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The teams worked to build the table about two hours a
week outside of class time. But in class, the table was still
a central theme. Soneson visited to explain some of the
Shaker theology, making a connection between religion,
technology and construction. “It’s not easy to connect
the humanities with technology,” said Riedle. “This
opportunity just fell in our lap.”

The table isn’t quite finished, but Greenhalgh’s intro to
Technology and Engineering Education class will finish
it this semester. “Our department is very grateful to the
Department of Technology for not only being willing to
try this out, but for being very successful,” said Soneson.

BRINGING EVERYONE
TO THE TABLE

Classes in the Department of Technology construct conference
table for Department of Philosophy and World Religions.
Czarnetzki deployed a sodar (Sonic/Sound Detection and Ranging) and a microwave radiometer to gather atmospheric data. The sodar records changes in sound waves as they travel through the air to measure wind speed and direction. It also has a ground temperature sensor that measured the cooler temperatures brought in by the lake breeze. That drop in temperature can be lined up with increased wind speed in the data to confirm arrival of the breeze. “They are two independent pieces of information, not measured by the same equipment,” said Czarnetzki. “That’s what you’d expect, and when you see that, you feel pretty good about the quality of the observations you’re making.”

The microwave radiometer scans the atmosphere, listening to the vibration of oxygen and water molecules. The vibration is dependent on temperature, so the computer can effectively get temperature readings and water vapor concentrations from up to 10 km above ground.

Czarnetzki provided a preliminary report at the Lake Michigan Ozone Study data workshop in Chicago last September. He’s also had students using the data as part of their undergraduate research projects. The next step is to write research papers after continuing to untangle the relationships discovered in the data.

“A massive research project aims to improve the quality of life for people along Lake Michigan, and Alan Czarnetzki, his equipment and his students are taking part in it. Czarnetzki, a University of Northern Iowa professor of meteorology, is working with the National Oceanic and Atmospheric Administration, NASA, the Environmental Protection Agency and several other universities, research institutions and state-run organizations on the Lake Michigan Ozone Study.

The study, fielded in spring 2017, gathered data to see if ozone levels can be predicted based on weather patterns, which would aid in the issuing of ozone advisories for Chicago, Milwaukee and other cities along Lake Michigan. Ozone is the main ingredient in smog and can trigger or worsen respiratory ailments. Findings might also be used to assist policymakers in creating regulations to improve air quality.

Lake Michigan creates ozone when pollutants collect along its surface due to the cooler temperature of the water. The sun’s rays break those chemicals down, and some of the resulting molecules recombine to form ozone. The sun also warms the land around the lake, creating the lake breeze that blows the ozone to the populated areas.

In addition to measuring the lake breeze, the study also measured the lake and air temperature, water vapor levels, wind conditions in the lower atmosphere, presence of volatile precursor pollutants and time of day in an attempt to figure out what elements have the most impact on the breeze. Scientists took measurements from two primary sites at Sheboygan, Wis., and Zion, Ill., but also gathered data via automobile, airplane and ship.

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Czarnetzki deployed a sodar (Sonic/Sound Detection and Ranging) and a microwave radiometer to gather atmospheric data. The sodar records changes in sound waves as they travel through the air to measure wind speed and direction. It also has a ground temperature sensor that measured the cooler temperatures brought in by the lake breeze. That drop in temperature can be lined up with increased wind speed in the data to confirm arrival of the breeze. “They are two independent pieces of information, not measured by the same equipment,” said Czarnetzki. “That’s what you’d expect, and when you see that, you feel pretty good about the quality of the observations you’re making.”

The microwave radiometer scans the atmosphere, listening to the vibration of oxygen and water molecules. The vibration is dependent on temperature, so the computer can effectively get temperature readings and water vapor concentrations from up to 10 km above ground.

Czarnetzki provided a preliminary report at the Lake Michigan Ozone Study data workshop in Chicago last September. He’s also had students using the data as part of their undergraduate research projects. The next step is to write research papers after continuing to untangle the relationships discovered in the data.

“A massive research project aims to improve the quality of life for people along Lake Michigan, and Alan Czarnetzki, his equipment and his students are taking part in it. Czarnetzki, a University of Northern Iowa professor of meteorology, is working with the National Oceanic and Atmospheric Administration, NASA, the Environmental Protection Agency and several other universities, research institutions and state-run organizations on the Lake Michigan Ozone Study.

The study, fielded in spring 2017, gathered data to see if ozone levels can be predicted based on weather patterns, which would aid in the issuing of ozone advisories for Chicago, Milwaukee and other cities along Lake Michigan. Ozone is the main ingredient in smog and can trigger or worsen respiratory ailments. Findings might also be used to assist policymakers in creating regulations to improve air quality.

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Tracy Freese provides marketing services for businesses all over the world

Tracy Freese knows what she’s writing about. Her company, Strong Estate, provides commercial copywriting and photography services for customers all over the globe. And while her office is in downtown Cedar Falls, most of her employees are not.

Freese has organized her business to embrace the digital nomad lifestyle. Many of her employees can work from wherever they are, especially the writers. “We work remotely. Most everything we do is able to be done anywhere, any time,” says Freese.

It works out well for her staff, the majority of whom are UNI students or alumni.

Freese is an alumna of UNI herself, completing her M.A. in organizational communication here. It’s helped her to understand the type of culture she wants to have at Strong Estate: relaxed, with no dress codes or set schedules. She utilizes tools such as Google Suites, video conferencing and document sharing to keep workers, remote or not, on the same page.

Adrienne Lamberti, associate professor of English, provides Freese with a good supply of interns from the Professional Writing program at UNI. The focus of the program is to study how people communicate and interact with each other in the workplace and the impact of those communication decisions.

Students in the courses, which can be part of a declared Professional Writing minor or taken individually, work on actual client projects to produce or edit workplace communications.

Their clients represent a variety of organizations from local to international and both for-profit and non-profit. “It’s a hands-on, ‘real world’ community engagement experience. That can be intimidating for some students, but they come out of the projects with incredible knowledge and networking opportunities,” said Lamberti.

That practical experience for the students means they’re ready to work, and Freese takes advantage.

The writers at Strong Estate can cover any topic and any project, from website copy to white papers and press releases to business pitches. As for the photography side of the business, Amazon sellers make up a large portion of her clients. Freese has found a high demand for lifestyle images with real-world models provided at an affordable price. They also shoot short videos of people interacting with the products.

Freese’s customers, located all over the world, find Strong Estate through online marketplaces like fiverr.com. She says her Iowa location is a benefit; people trust Iowans, and American English is the most desired language for writing because Americans are the ones doing all the buying.

Lamberti thinks the partnership between the Professional Writing program and Strong Estate seems to be working well, adding that in the past three years, eight Professional Writing students have moved on to work at Strong Estate. Freese appreciates the good work ethic and professionalism that comes from her UNI students. “UNI provides us with a really great funnel of talent,” Freese said.

Adrienne Lamberti, associate professor of English, provides Freese with a good supply of interns from the Professional Writing program at UNI. The

The Professional Writing program draws a variety of students. “I’m teaching a class where English, Economics, Supply Chain Management, and Accounting majors are sitting next to each other.”

- Adrienne Lamberti

Tracy Freese, owner of Strong Estate.
Across the country, wetlands are in danger. Factors such as changes in upstream watersheds, an increase in pollutants, invasive plant species and loss of natural processes like wildfires have all contributed to the decline of these valuable environments. Alumna Amy Husveth looks to reverse some of that damage. “Restoration implementation is always a worthy endeavor, especially when compared to the ‘do-nothing’ approach, which guarantees the continued loss of ecological functions,” Amy said.

Amy works at Critical Connections Ecological Services (CCES) in Minnesota with her husband, Jason. CCES is a natural resource and ecological restoration consulting firm, providing services such as restoration and management planning, natural resource inventory, wetland delineation and permitting, agricultural planning, wetland banking services, land reclamation and rare species surveys. CCES’s clients include cities, the State of Minnesota, residential developers, mining companies and private landowners.

Jason was inspired to start the business after discovering the endangered species *Xyris torta* (twisted yellow-eyed grass), in a degraded wetland in central Minnesota in 1997. Thought to have been eradicated from the state, *Xyris torta* hadn’t been seen there since the 1960s. He began to experiment with unique wetland restoration methods and learned to restore degraded wetlands to diverse wet meadows with more than 150 native wetland plants, without using herbicide or supplemental seeding.

Some of the wetlands CCES restores become wetland mitigation bank sites. Banked wetland credits are used or sold by their clients to replace unavoidable wetland impacts resulting from development or construction projects, as required by state law. Restored wetlands that have been banked have a perpetual easement over them to protect the areas from future development.

Many of the wetlands CCES works with are part of the Anoka Sand Plain, a unique ecological landform in Central Minnesota formed by glacial lakes. They are distinct wetlands and host to a variety of plants not found elsewhere in the state; in these areas there are over twenty plant species listed as endangered, threatened, or of special concern in Minnesota. Through their survey work, CCES has detected many of these rare plant species, and they’ve even documented a few plant species not previously known to occur in the state’s flora.

Amy’s interest in environmental restoration was inspired by one of Laura Jackson’s courses in applied ecology at UNI. Amy also worked at the Tallgrass Prairie Center, volunteered in the herpetology lab and was a summer undergraduate research assistant during her time here. “Through these opportunities, I gained hands-on and very practical experience in the field of my chosen career and met many professionals who helped to guide me on my path,” said Amy.

After completing her bachelor’s degree in ecology in 2004, she continued on to get her Master of Science degree at UNI. Her graduate work focused on researching methods for enhancing wildflower diversity, which she applies to her job at CCES.

Amy’s favorite part of being a restoration ecologist is the continued opportunity to challenge herself through solving complex environmental and regulatory challenges. “I greatly enjoy doing my part to restore diverse wetland habitat in Minnesota and doing my part to leave this land better than I found it,” Amy said.

Photos on this spread and the wetland photo on page 3 are courtesy of CCES.
Department of Computer Sciences launches new program

The Department of Computer Science was awarded a two-year grant for $340,000 from the National Science Foundation. Three associate professors of computer science, Sarah Diesburg, Phillip East and Ben Schaf, submitted the proposal, securing the biggest NSF grant in department history. It will fund UNI’s K-12 computer science education curriculum project and will help computer science educators with professional development.

Graduate student creates original theatre production

Milica Njezic, a graduate student, wrote and directed an original theatre work, “Live Thy Neighbor.” The show is a series of poetic episodes that explores what it means to be a neighbor in times of crisis. Njezic’s work debuted in March, with three performances put on by UNI’s Interpreters Theatre.

SERTOMA lab passes silver anniversary

The SERTOMA Research Laboratory, a space dedicated to the advanced study of communicative disorders, recently wrapped up its 25th year of operation. The lab was completed in 1992 after SERTOMA clubs across the state raised money for its creation. Three projects are ongoing in the lab: Evette Edmister’s research into communicative disorders, recently wrapped up its 25th year of operation. The lab was completed in 1992 after SERTOMA clubs across the state raised money for its creation. Three projects are ongoing in the lab: Evette Edmister’s research into communicative disorders, recently wrapped up its 25th year of operation. The lab was completed in 1992 after SERTOMA clubs across the state raised money for its creation. Three projects are ongoing in the lab: Evette Edmister’s research into communicative disorders, recently wrapped up its 25th year of operation. The lab was completed in 1992 after SERTOMA clubs across the state raised money for its creation. Three projects are ongoing in the lab: Evette Edmister’s research into communicative disorders, recently wrapped up its 25th year of operation. The lab was completed in 1992 after SERTOMA clubs across the state raised money for its creation. Three projects are ongoing in the lab: Evette Edmister’s research into communicative disorders, recently wrapped up its 25th year of operation.

Writing Conference to mark 50 Years at UNI

The North American Review (NAR) will celebrate 50 years at UNI with a writing conference on campus from April 19-21. Writers, teachers and scholars from around the country will be invited to share their work and participate in writing workshops.

The conference will be include a keynote speech by NAR contributing editor Terry Tempest Williams, whose book “The Open Space of Democracy” will be the focus of the spring issue of NAR and a Provost’s Common Read. Proposals for presenters are currently being accepted from students and community members at northamericanreview.submitable.com/submit.

Women’s Chorus marks 130th anniversary with reunion

The Women’s Chorus invites alumnae to a weekend of celebration as the ensemble enters its 130th year. An informal gathering is set for 8 to 10 p.m. Friday, Oct. 12 at SingleSpeed Brewery in Waterloo. Tours of the music facilities will begin at 10 a.m. Saturday, Oct. 13 in Russell Hall, while alumniae rehearsal begins at 11 a.m. The performance will be at 4 p.m. in GBPAC’s Great Hall. A reception and banquet will follow. Register at music.uni.edu/womens-chorus-reunion-registration.

Two programs named to national lists

UNI’s TESOL program was ranked No. 6 on BestColleges.com’s list of best online master’s programs in English language learning. The program also made the top ten in 2017.

BestColleges.com also ranked UNI’s online master’s program in secondary education as one of the best in the nation, coming in at 15th. Rankings are based on academic quality, affordability and online programming offerings.

Special theatre production inspired by moon landing

Gretta Berghammer, professor of theatre, is developing “To Touch the Moon,” a first-of-its-kind immersive theatre production for youth on the spectrum. Its debut will coincide with next year’s 50th anniversary of the moon landing. Immersion theatre blurs the line between actor and audience; participants are characters in the action from the start.

Berghammer; Mark Parrott, associate professor of theatre; Marcy Seavey, UNI STEM coordinator; and two science education students spent three days at NASA’s Marshall Space Flight Center in Huntsville, Ala., to conduct research for the show.

Alumna speaks at science education conference

Aileen Sullivan, a UNI graduate, gave the keynote speech at the 2018 UNI Science Education Update in April. Sullivan, a chemistry educator at Ames High since 1996, was named 2018 Teacher of the Year by Iowa Gov. Kim Reynolds. The conference shared the latest teaching methods and research with educators from across the state.

Student wins national award for short film

Tarrell Christie, a digital media production major, won an Award of Excellence (Honorable Mention) at the Broadcast Education Association’s Festival of Media Arts for The Spaceman. The short film is about a young African American astronaut who goes on a volunteer mission into a mysterious wormhole.

Alumna earns presidential teaching award

Ashley Flatbo, an elementary and middle-level education graduate, was named a 2018 recipient of the Presidential Award for Excellence in Mathematics and Science Teaching. She has taught for 13 years in Mason City, where she is currently an instructional coach and involved with FIRST LEGO League, robotics tournaments and STEAM festivals.

The Presidential Awards for Excellence in Mathematics and Science Teaching are the highest honors bestowed by the United States government specifically for K-12 mathematics and science (including computer science) teaching. Each recipient receives a certificate signed by the President of the United States and a $10,000 award.

Open house honors Wright Hall’s 100th birthday

A celebration of Wright Hall and David Sands Wright was held last fall. Historical pictures and artifacts from the archives were on display, as were tools used throughout history in math education. Several lectures throughout the fall also focused on Wright and Wright Hall.

The Iowa General Assembly authorized the construction of the Vocational Building, now Wright Hall, in 1913. Construction began in 1915 and was completed in 1917 for $119,566. The building was renamed in 1937 to honor Wright, who taught math at the Iowa State Normal School from its founding in 1876 until 1916. Wright Hall was renovated in 1949-50 and 1990-91 and currently houses the Department of Mathematics.

UNI, U of I join forces on research project

Ali Tabei, assistant professor of physics, and research student Joseph Tibbs spent the summer conducting research with Maria Spies, a biochemistry professor at the University of Iowa. The collaboration is part of Carver College of Medicine’s FUTURE in Biomedicine program.

Tabei and Tibbs used their knowledge of physical systems to help improve data processing software used by Spies to investigate proteins that repair DNA. This type of interdisciplinary collaboration can result in unexpected breakthroughs and gave Tibbs invaluable experience working in a research lab. Tabei and Tibbs continue their work on code that will be used to improve single-molecule research studies across the country.

Rankings are based on academic quality, affordability and online programming offerings.
Alumnus Matthew Boucher ’04 has long balanced interests in music and science, a background that is helping him at his new job at NASA. As an undergrad student at UNI, he double-majored in both music and physics. Boucher says that his interest in both subjects was encouraged by all of his professors. “Having the support to follow my passions in different areas validated my curiosity and made it okay to try new things that might be outside my comfort zone,” Boucher said.

After UNI, he went to Indiana University Bloomington and received his Master of Music in Tuba Performance, which he’s been playing since he started on the baritone tuba in fourth grade. That degree led him to work as a craftsman of musical instruments at S.E. Shires, Co., where his tasks included building custom parts for trombones. “Solving some of those unique technical problems helped me learn how to come up with creative solutions, a skill that I applied to my research,” said Boucher.

After spending two years in France, he received a Marie Curie fellowship to do acoustics research at the Catholic University of Leuven in Belgium. His work there involved the study of acoustics in smaller interior rooms and whether methods used in predicting the acoustics of larger spaces can be applied to areas like offices and classrooms. At the completion of his studies, he earned his doctorate in Noise and Vibration.

Now, Boucher is putting all of his previous research to work as a Research Aerospace Technologist (AST) in Flight Vehicle Acoustics at NASA.

His main task at NASA is to better understand how we process and perceive sounds by doing laboratory listening tests. One of his team’s goals is to determine annoyance levels that can help regulators set reasonable certification standards for flight vehicles. “It is really exciting to be working at NASA Langley Research Center, which is actually the birthplace of NASA over 100 years ago. It is amazing to be surrounded by pieces of history, but the coolest part is working with caring people who just happen to be really intelligent,” Boucher said.

While his most recent endeavors have been leaning more in the scientific realm, music is always a part of his life, too. He played in musical groups in both France and Belgium, but is taking a short break as his tubas are still making it through customs. He hopes to find a group to play with in Virginia when he’s reunited with his instruments.

Toomsen was named artistic director at the beginning of this year, after TCR conducted a nationwide search with 100 candidates. In her role, she oversees programming and finds directors, designers, music directors, choreographers and other positions for each show. She works closely with other departments to make sure each production is a success, including making sure the production department has enough manpower to build the sets and helping volunteer engagement to see that community members are lined up to help. She also directs a few shows a year. “Whether I am directing or not, I consider myself responsible for the quality of each production, so I stay involved to support each team as much as I can,” Toomsen said.

In her undergraduate studies at UNI, Toomsen focused on acting, but her directing, play analysis and aesthetics perspectives have evolved and changed, and I have studied new and different techniques over the years,” said Toomsen.

After returning to Iowa, Toomsen became very active in the performing arts community, directing shows at the Riverside Theatre, Old Creamery, Theatre Cedar Rapids and Strayway-Wood Theatre, among others. During her directing work on August: Osage County at UNI, she worked with Matthew Woodman, assistant professor in the department of theatre. Since then, he has helped with coaching on several TCR shows and directed a production there earlier this year. “I hope to bring Matt and other Theatre UNI professors to TCR to share their knowledge and experience with our performers. I have been fortunate to stay connected to the program at UNI and plan to continue building a bridge between our programs when I can,” Toomsen said.

Toomsen has won awards for her directing and is looking forward to the upcoming season at TCR. They are kicking off their 85th season with a revitalized take on the classic musical, My Fair Lady, followed by a mix of shows including Hunchback, Elf the Musical, Newsies, Shakespeare in Love and more.
Stephen Gaies wasn’t planning to lead the Center for Holocaust and Genocide Education (CHGE) at UNI, but the idea of creating a permanent center was far from the minds of any of the original ad hoc committee members whose initial goal was to organize a lecture series on the Holocaust. That original idea of a lecture series quickly evolved into a three-semester program of events, and the work of the committee led to the establishment of the CHGE in September 2010.

“It was almost four years of work and a lot of programming on campus that basically led to and provided evidence for the need for the center,” said Gaies, director. “We could point to the terrific turnout we got for our different events, the level of interest in what we were doing, the collaboration of departments, colleges and other offices across campus, and the number of students who were served directly or indirectly.”

The CHGE aims to increase knowledge about the Holocaust and other genocides and to strengthen the commitment to confront threats to human rights, including intolerance, antisemitism and racism. It also prepares K-12 teachers to include these issues in their lesson plans. To do this, the CHGE organizes traveling exhibits and educational programming, including lecture series, art exhibits, musical performances, film screenings and teacher workshops, often held in collaboration with local groups like the Grout Museum, the Hearst Center for the Arts and the Waterloo/Cedar Falls Symphony. The center is also an educational outreach partner of the United States Holocaust Memorial Museum, with informal connections and collaborations with many other centers and other institutions across the state and country.

Recent projects include a traveling exhibit on the role of doctors and nurses as rescuers in humanitarian crises around the world, which has been in Des Moines, Waterloo and Memphis, Tenn., and is heading to North Dakota, Illinois and Indiana. In partnership with the Hearst Center for the Arts, the CHGE will commemorate the seventy-fifth anniversary of the rescue of Jews in Denmark with a photo exhibit, a guest speaker, a film series and a book reading group in October and November.

Gaies doesn’t see the need for the center diminishing; on the contrary, he finds it more important than ever. “No one could have predicted the relevance and urgency of the issues that we deal with—the rise of authoritarianism around the world, growing dangers of global warming, inequitable distribution of resources, increasing power of corporate entities, plus the growth of social injustice, identity politics, nationalism and tribalism—all of these things are like a lethal mix that put human rights at greater and greater peril,” said Gaies.

The CHGE depends on gifts and grants for much of its programming and other activities. A gift from UNI alumnus Norman Cohn and his family to fund an annual lecture series has long been the anchor of the CHGE’s programming, and other generous gifts have funded traveling exhibits and an annual film series, in addition to many other events. In April 2019, the CHGE will organize a Holocaust remembrance ceremony for the 13th consecutive year.
Students assist faculty with research work for ten weeks over the summer

Dexter Cox, a student majoring in chemistry and physics, spent his summer a little differently than most of his peers. He spent ten weeks in a laboratory trying to make something that’s 99.9% air.

As part of the Summer Undergraduate Research Program (SURP), Cox worked with Tim Kidd, professor of physics, to study the influence of sonication parameters on the morphology of nanocellulose aerogels. Basically, they used an ultrasonicator—a machine with a metal probe made out of titanium alloy tank armor—to break up plant fiber molecules into tiny pieces called nanocellulose. Nanocellulose has many varied applications, such as body armor, fruit protectant and oil absorber.

For students, SURP gives them an opportunity to gain experience doing research. Participants in the program assist faculty with laboratory or field research and receive a stipend and course credit for their efforts. Cox’s work this summer focused on optimizing the process of making the nanocellulose by minimizing the time it takes to complete. He was successful in reducing the time required by a factor of three, using automation techniques.

Out in the field, Ai Wen, instructor in the biology department, joined with other professors to study prairies in the Conservation Reserve Program’s Pollinator Enhancement Plantings. They determined how effective the areas are by doing plant and pollinator surveys. She says that the SURP program not only helps to build resumes for students, but it’s helpful for the professors, too. With many different survey sites requiring multiple visits throughout the season, their project might not be possible without the extra manpower. “SURP students help to increase the number of sites and the intensity of survey frequency, and that makes the data a lot more valuable,” said Wen.

While the process varies between departments, there are research opportunities in the biology, chemistry and biochemistry, computer science, Earth and environmental sciences, math and physics departments. This summer, 38 students took part in the program and studied things like cattails, atmospheric haze, data retrieval, watershed delineation, unbalanced sets, the Cedar River and the compound a,a’bis(4-aminopyridine)-p-xylene.

Funding for the research projects comes from various sources, including grants, private gifts, industrial partners, federal work study and internal funding through CHAS departments. Faculty members select which student will work with them on their projects.

At the completion of the ten weeks, there is a research symposium for participants to be recognized and share their work through posters. “The Summer Undergraduate Research Symposium is a nice way to wrap up the program and see what work has been done by all the different departments,” said Laura Strauss, professor and head of the Department of Chemistry and Biochemistry. Strauss organizes the symposium and manages the summer program in her department.

For the students participating in SURP, there’s no slacking during the summer. “From the beginning, learning about the process of how nanocellulose aerogels are created and how to work the equipment, to the end when I presented my research ... it seemed like everyday I would learn something new,” said Cox.
Kimberly Conner, Ph.D., has joined the Department of Mathematics as an assistant professor. She completed her doctorate at the University of Missouri.

Ross Winter, Ph.D., is an assistant professor of violin in the School of Music. He completed his doctorate at the Catholic University of America and actively performs with the Richmond (Va.) Symphony and the IRIS Orchestra (Tenn.).

Jim Bray has been named an assistant professor in the Department of Theatre. He has a master’s degree in theatre from Kent State University.

Mike Conrad, Ph.D., is an assistant professor of jazz studies/music education in the School of Music. He earned his doctorate at the University of Northern Colorado and was previously the head band director at West High School in Waterloo.

Jeffrey Funderburk, Ph.D., a professor of tuba/euphonium, was named the director of the School of the Music. He received his doctorate from the University of Illinois and has been teaching at UNI since 1987.

Yasemin Sari, Ph.D., has joined the Department of Philosophy and World Religions as an assistant professor. She previously taught at the University of Alberta, where she received her doctorate.

Pamela Hartman was named an instructor in Science Education. She was previously an adjunct professor at UNI, where she earned her master’s degree in science education.

Benjamin Baker, Ph.D., has joined the Department of Communication Studies as an assistant professor. He completed his doctorate in communication at the University of Wisconsin-Milwaukee.

Sade Barfield is an instructor and the director of individual events in the Department of Communication Studies. She received her master’s degree from UNI.

Justin Peters, Ph.D., joins the Department of Chemistry and Biochemistry as an assistant professor of biochemistry. He received his doctorate from the Mayo Clinic Graduate School of Biomedical Science, where he recently completed a fellowship.

Joshua Gordon, Ph.D., is a new assistant professor in TESOL and Applied Linguistics for the Department of Languages and Literatures. He has a doctorate from Indiana University, Bloomington, and was previously a university professor in Costa Rica.

Amy Osatinski, Ph.D., is an assistant professor and faculty director in the Department of Theatre. She has a doctorate from the University of Colorado Boulder and extensive experience as a performer and director.

Benjamin Baker, Ph.D., has joined the Department of Communication Studies as an assistant professor. He completed his doctorate in communication at the University of Wisconsin-Milwaukee.

Lisa Kopf, Ph.D., joins the Department of Communication Sciences and Disorders as an assistant professor. She was previously a professor at Michigan State University, where she received her doctorate.

Kelly Strong, Ph.D., has been named an associate professor in the Department of Technology’s construction management program. He comes to UNI from Colorado State University.

Lisa Kopf, Ph.D., joins the Department of Communication Sciences and Disorders as an assistant professor. She was previously a professor at Michigan State University, where she received her doctorate.

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golf and his grandchildren. He also still
substitute teaches.
78 Debbie Verkerk, BA, Columbia, SC, retired from the University of South
California after 37.5 years as an assistant
documents librarian.
79 Larry Smith, BA, Anchorage, Alaska, is the production assistant for Brooks Range Petroleum.

1980s
80 JoAnn Davis, BM, MM, Kansas City, Mo., was promoted to full professor at the University of
Missouri Kansas City in 2018. In 2017, she was awarded a University of Missouri
research grant to make a recording of new music for trombone and piano. The
recording will include works by Jennifer Hig-
don, Victoria Bond and Paul Rudy. Anticipat-
ed completion is 2019.
81 Jeffrey Hellmer, BM, Austin, Texas, is director of jazz studies and serves as the associate
director of the Butler School of
Music at the University of Texas at Austin.
82 Monique Walker, BA, La Crosse, Wis., was named president of the University of Utah.
83 Judy [William] Birtz, BA, MA '94, Council Bluffs, Iowa, is the associate
director for strategic part-
nerships and professional learning with BSCS Science Learning.
84 Tony Burns, BA, MA '90, Cedar
Falls, Iowa, is in his 34th year teaching physics and geology at Waterloo
Revisible. In addition, he is an Academy Career Coordinator, which
involves arranging job shad-
s and speakers and supporting the Waterloo Career Center.
85 James Chance, BM, Zearing, IA, was elected president of United Auto Workers Local 893 in
Marshalltown.
86 Ruth Watkins, BA, Salt Lake
City, Utah, was named president of the University of Utah.
87 Kim (Pleger) Baert, BA, MA '93, Bismarck, ND, taught earth
science and chemistry at Linn Mar High School for 18 years and is now in her 12th year as associate principal.
88 Bradley Block, BA, Custor, SD, entered into his ninth year at Jewel
Cave National Monument and is currently the chief of interpret-
ation. He also was reelected to the board of directors for the National
Association of Interpretation.
89 Cody [Chatfield] Freeberg, BA, Faribault, MN, is the national ac-
counts estimator with Gemini Inc.
90 J C Sanford, BA, Northfield,
MN, received a 2018
McKnight Fellowship for Compos-
ers, which acknowledges excel-
cence in music composition and includes a $25,000 honorarium.
91 Angie Toomsen, BA, Anchorage, AK, was named 2018 Iowa
Teacher of the Year.
92 Tonya Blattner, BA, Northfield,
MN, received a 2018
McKnight Fellowship for Compos-
ers, which acknowledges excel-
cence in music composition and includes a $25,000 honorarium.
93 Stacy [Marcion] Brooks, BA, Dunlap, IL, is an English teacher and head speech coach at Dunlap
High School.
94 John Sutter, BA, Ames, IA, was named 2018 Iowa
Teacher of the Year.
95 Tammy Blattner, BA, Northfield,
MN, received a 2018
McKnight Fellowship for Compos-
ers, which acknowledges excel-
cence in music composition and includes a $25,000 honorarium.
96 John Houska, BA, Chester,
VA, is a physical therapist and became engaged June 4, 2017.
97 Aileen (Mahood) Sullivan, BA, Ames, IA, was named 2018 Iowa
Teacher of the Year.
COMMUNIQUÉ

CLASS NOTES
Professor of Trombone at Iowa, has been named Assistant Professor of Outdoor Recreation and Tourism with community leaders to educate and promote the economic development of communities from localized poor to vibrant economic communities.

Aretha Franklin and Dick Oatts, BA, BA ’05, ’03 Jason Danielson with community leaders to educate and promote the economic development of communities from localized poor to vibrant economic communities.

Amber (Seemann) Youngblut, BA, MBA ’10, Jesup, Iowa, was promoted to vice president of human resources at Greater Mahaska Community School District. He is currently a math teacher at Abra- ham Lincoln High School.

Nancy (Wallace) Burkhart, BA, MA, died Dec. 6, 2017, in Cedar Rapids, Iowa.

Kenneth Caquotin, BA, MA ’84, died July 24, 2017, in Cedar Falls, Iowa.

Gene Ehrbar, BA, died Feb. 20, 2016, at Sioux City, Iowa.

Carolyn (Vance) Burrell, BA, died Oct. 18, 2017, in Milwaukee, Wis.

Janet Gallagher, BA, MBA ’81, died Aug. 4, 2016, in Waterloo, Iowa.

Riley Mullins, BA, Iowa City, Iowa, works in the air and water quality branch for Linn County Public Health and is working towards her master’s degree in environmental engineering and science at the University of Iowa.

Austin Sanford, BA, Lenasia, Kan., is a consultant analyst with Cerner Corporation.
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